A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

Incorporating *International Commerce*

JANUARY 22, 1973

Commerce Today

Coming Developments in Business and Technology

How To Spot Phony Dollars

Page 4

Newsmemo

"A Look At Business In 1990" is getting new exposure this month. Product of last year's White House Conference on the Industrial World Ahead, it emerges now as a book and a film. To get the book, send $5.25 to Superintendent of Documents, Public Documents Distribution Center, 5801 Tabor Ave., Philadelphia, Pa., 19120. The 20-minute film may be rented at $12.50 from National Audiovisual Center, Distribution Branch, Washington, D.C., 20409.

The National Federation of Export Management Companies continues to grow. It now has a ninth affiliate, the Pacific Northwest Association of Export Management Companies, Seattle. The federation, set up by executives in the combination export management field with assistance from Commerce Department, works both with its own members and the general public to help improve the overall U.S. trade balance. It aims at advancing standards of performance in the export field and supplies educational and other services to its membership.

Systems down but pupils up. That is what the Census Bureau has found about the U.S. public school network. According to a preliminary report in the 1972 Census of Governments, the number of public school systems in the U.S. went down by 6,000 in the past five years while the enrollment grew by 4.2 million. The system shrinkage follows a 30-year trend of consolidation and annexation of school districts. The recent decrease is concentrated in systems with small enrollments.

Matches and lighters started nearly a quarter of fires involving fabrics. A recent study of 1,838 such fires by Commerce's National Bureau of Standards showed that careless smokers and children playing with matches accounted for 430. Resulting were 375 injuries, 57 of which were fatal. The deaths were centered mostly in children under 11 and adults over 65. These fires occurred predominantly in homes. Garments were first to ignite, compared to such non-apparel items as furnishings or bedding, by a 4-to-1 margin.

Advanced U.S. anti-pollution smokestacks are reaching Australian skylines via the "Licensing, Investment Abroad" notices offered in this magazine. Eugene M. Lang, president of REFAC Technology Development Corp., owner of the foreign rights to the patented Hermet smokestack, was introduced to an Australian steel fabricator through such notices of Commerce's Office of International Finance and Investment. He comments: "This particular success reflects not only the opportunities that exist overseas for small U.S. manufacturers but the constructive role that Commerce can play in promoting them."

What costs ahead for cleaner water? Capital expenditures for municipal and industrial water pollution control are expected to rise from $2.9 billion in 1970 to $4.8 billion in 1980. The estimate is by Frost & Sullivan, a New York market research firm. Sizeable increases in spending are projected for: waste water treatment plants and related equipment, connecting sewers, intercepts, outfalls, cooling towers, and for new or modified installations used to reduce industrial water pollution.

Commerce Today

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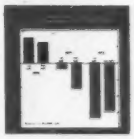

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COVER: *Counterfeiting is one of the nation's oldest crimes and it is on the upswing in this country. In 1972 the public lost $4.8 million as a result of the skill of its perpetrators. Story on Page 4 tells how more businessmen are being victimized and what they can do about it.*

ECONOMIC
HIGHLIGHTS

Factory Production, Employment Register Strong Increases; Further Gains Expected

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

Manufacturing provided a significant part of the muscle in the hefty expansion of the U.S. economy in 1972, and a continuation of the strong uptrend in this sector is expected this year.

Durable goods production generally is more strongly affected by the business cycle than nondurable goods output, and this was evident during developments over the past several years. During the 1970 recession, durable goods production declined sharply while nondurables leveled off. In the moderate expansion in the first half of 1971, nondurables rose quite steadily but durables traced an irregular pattern.

The introduction of the Administration's New Economic Policy in August 1971 set the stage for a sharp uptrend in durables in 1972 and a quickening of the rate of gain in the nondurable sector.

As the third chart indicates, the average weekly hours worked by employees in manufacturing began recovering in 1971. This indicator moved up more decisively in 1972 and has now returned to the 1969 level.

As businessmen became more confident about the underlying strength in the economy, employment in manufacturing, particularly in the durables industries, began increasing at a rapid pace. During 1972, about one-third of the 2.4 million increase in total employment was attributable to gains in manufacturing.

The unemployment rate among those classified as manufacturing workers, depicted in the fourth chart, has been affected strongly by cyclical developments. The particularly sharp decline in this rate in the past year has brought it below the rate for the economy as a whole.

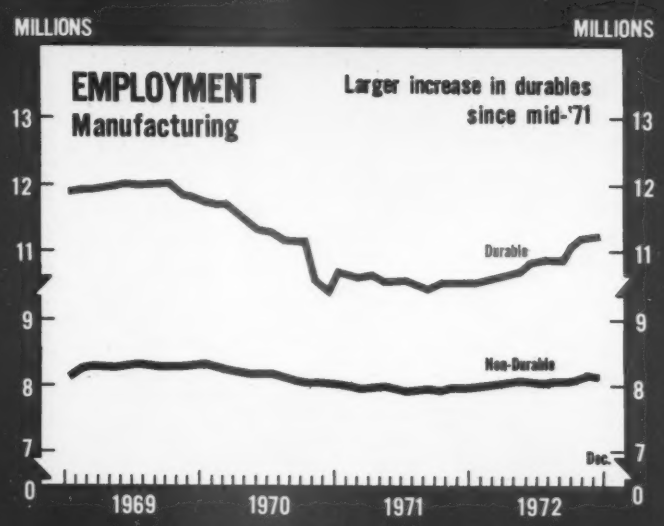
Economic evidence strongly supports the view that production and employment in manufacturing are still on a strong uptrend. Retail sales — especially automobiles and other durable goods—made important gains last year, reflecting the vigorous and continuing uptrends in personal income and employment, and further increases are expected during 1973. Durable goods producers should receive a further boost from business plant and equipment spending, which is now expected to reach $100 billion this year. This would be a 13 percent annual increase following a 9 percent gain in 1972. Defense spending has leveled off after a three-year decline and is no longer a drag on the manufacturing sector.

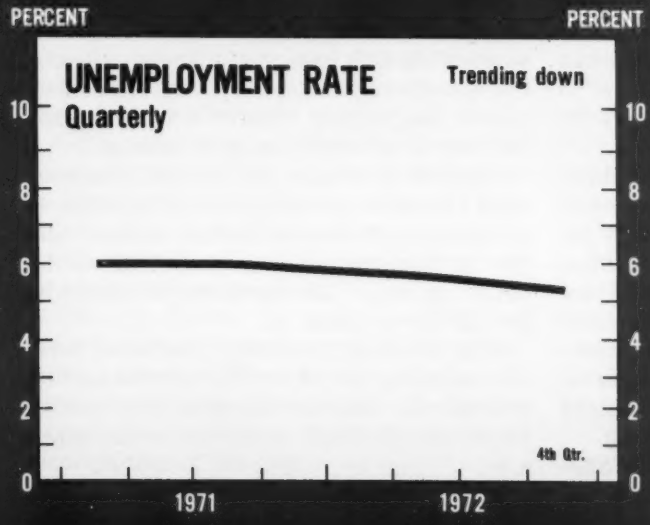
Furthermore, inventories have not been keeping pace with the strong rise in sales. The inventory/sales ratio for business as a whole has been declining for two years and now is at the lowest level in over six years. Additional production will be required to prevent a further decline in this ratio, and even more would be required to bring the ratio to the level of the late 1960s. Still another factor is the expected improvement in the U.S. international trade position, a development that would result in more of the U.S. demand being supplied by U.S. rather than foreign production.

Other economic data

The unemployment rate for the economy as a whole has been declining quarter-by-quarter for more than a year. Retail sales rose sharply in October, and essentially maintained that level through year-end. December sales were 11½ percent over December 1971.

Latest Indicators





All data seasonally adjusted.

Commerce Today
Vol. III, No. 8
January 22, 1973

Alert Businessmen Can Keep Counterfeiters' Hands Out Of The Till

Growing Criminal Activity Can Be Curtailed By Watchfulness Of Intended Victims

Bankers and businessmen — especially in retail trades and services — can save millions of dollars in losses to counterfeiters by taking a closer look at the currency they accept.

Counterfeiting, one of the nation's oldest criminal activities, is on the upswing. And the sharp increase has created a market for a variety of new ultra-violet money scanners and other counterfeit detecting devices being developed by private companies. While many of these new products are effective in varying degrees, ***none has the endorsement of the Secret Service,*** the Federal agency charged with combatting counterfeiting.

Manufacturers of one commercially marketed device, designed for either countertop or cash register mounting, say "the bad buck stops here" and advertise the gadget as being able to "detect even the most perfect counterfeit bill instantly." Another device, its manufacturers say, is made of a "flat" plastic magnifying lens to aid comparison between counterfeit and good money.

Secret Service says that John Q. Businessman can make a significant contribution to stopping the flow of counterfeit currency simply by knowing the important features on paper currency and watching the notes he accepts as currency.

Most counterfeit currency, the Secret Service explains, is of crude craftsmanship, printed with inferior plates on poor quality paper, and its flaws are visible to the naked eye.

"The best method of detecting a counterfeit note is to compare the suspect note with a genuine note of the same denomination and

series," the Secret Service says, "Look for differences—not similarities."

Counterfeiters produced a record $26.8 million in bogus money in fiscal 1971, an increase of $8.3 million or 46.7 percent over the previous fiscal year. Secret Service seized $23.3 million before it was placed in circulation.

Losses to the public totaled $3.4 million.

In fiscal 1972 the amount seized before circulation was $22.9 million, and losses to the public totaled $4.8 million.

The reason this is increasingly important to the businessman is the new boldness with which the counterfeiter spreads his bogus bills. He is willing to take greater risks to get more profits. Thus, more businessmen are likely to be victimized.

The Secret Service has local field offices in Albuquerque, Atlanta, Austin, Baltimore, Birmingham, Boston, Buffalo, Charleston, W.Va., Charlotte, Chicago, Cincinnati, Cleveland, Columbia, S.C., Columbus, Ohio, Dallas, Denver, El Paso, Grand Rapids, Honolulu, Houston, Indianapolis, Jackson, Miss., Jacksonville, Kansas City, Mo., Little Rock, Los Angeles, Louisville, Memphis, Miami, Milwaukee, Minneapolis, Mobile, Nashville, Newark, New Haven, New Orleans, New York, Norfolk, Oklahoma City, Omaha, Paris France, Philadelphia, Phoenix, Pittsburgh, Portland, Oregon, Providence, Richmond, Sacramento, St. Louis, Salt Lake City, San Antonio, San Diego, San Francisco, San Juan, Puerto Rico, Scranton, Seattle, Spokane, Springfield, Ill., Syracuse, Tampa, Toledo, Washington, D.C.

Noting that high statistical indicators in counterfeiting activity observed during the last fiscal year are continuing, James J. Rowley, Director of the Secret Service, said "the counterfeiter has become more business oriented than his predecessor."

"He has decided to obtain a higher and quicker profit, he must accept higher risks," Rowley asserted. "He now deals directly with more people upon whom he has collected less background data than the more provincial counterfeiter of the past.

"In previous years the counterfeiter was often a cautious, suspicious introvert who would demand criminal credentials, often authenticated by blood relatives, before he would sell his product to a stranger."

COUNTERFEIT DETECTED—*A special agent of the Secret Service performs a microscopic examination of a counterfeit $20 Federal Reserve note.*

This made Secret Service's job of infiltrating criminal operations difficult, but it also limited the counterfeiter in his ability to dispense his currency in large profitable amounts, Rowley explained.

"Today's counterfeiter is less concerned with his personal safety and more concerned with volume sales of his merchandise," the Secret Service director continued. "He makes more deals with more people in shorter periods of time.

"Although we might arrest him as the man behind the operation just as quickly as we did in the past," Rowley said, "he has now placed far more counterfeit money in circulation before we reach him than he would have 10 years ago.

"We have found that even after we seize a counterfeiting plant and arrest the manufacturers, we must still seek out the numerous smaller distributors in wider geographic areas who had purchased notes from the

plant before we arrived on the scene," Rowley explained further.

Rowley discussed the Secret Service's operations in recent testimony before the House Appropriations Committee. The testimony on the budget for fiscal 1973 included three recent case studies of counterfeiting operations seized by the Secret Service.

Secret Service's advice to the businessman on what to do if you receive a counterfeit bill is:

- DO NOT return it to the passer.
- DELAY the passer, if possible.
- TELEPHONE the police or the United States Secret Service.
- NOTE the passer's description, the description of any companion and the license number of the vehicle used.
- WRITE your initials and the date on the bill and surrender it only to the police or the U.S. Secret Service.

And you — the businessman — can detect counterfeit money with the naked eye, according to Secret Service, simply by studying each aspect of currency and comparing. For example, most counterfeits are made by a photo-mechanical process. The printing appears flat and lacks the three dimensional quality of genuine notes.

Further, the lines in the portrait background, if you look closely, form squares. On counterfeits, some of these squares may be filled in, and many of the delicate lines in the portrait may be broken or missing.

Comparing a suspected bill with a genuine of the same denomination, look at these features:

Portrait: On genuine currency the portrait appears lifelike and stands out distinctly from the fine screen-like background. The hairlines are distinct. On counterfeit the portrait is lifeless and the background is usually too dark. Portrait merges into the background. The hairlines are not distinct.

Colored Seal: On genuine currency saw-toothed points are even, clear and sharp. On counterfeit, saw-toothed points on the circumferences are usually uneven, blunt and broken off.

Border: On genuine currency the fine lines are clear, distinct and unbroken. On counterfeit, the fine lines that crisscross are not clear or distinct.

Paper: Genuine bills are printed on distinctive paper with visible, interspersed red and blue fibers. Counterfeit bills are usually printed on bond paper with no colored fibers evident or with red and blue lines printed on paper to simulate fibers.

Counterfeiters rarely use the wrong portrait on notes, but occasionally they alter the amounts on bills. For example, a $1 bill may be raised to a $10 bill. Consequently, Americans should know the portraits on paper currency: George Washington on the $1 bill, Abraham Lincoln on the $5 bill, Alexander Hamilton on the $10 bill, Andrew Jackson on the $20 bill, Ulysses S. Grant on the $50 bill, Benjamin Franklin on the $100 bill.

Suspected counterfeit coins should be compared with a geniune coin of the same denomination. Many counterfeit coins feel greasy. The reeding (corrugated outer edge) on counterfeits is uneven, crooked and often missing. A band of copper should be

clearly visible on genuine 10 cent and 25 cent pieces struck on the new non-silver clad alloys. These coins bear dates of 1965 and later.

Secret Service was created in 1865 to suppress counterfeiting, which, at that time, accounted for one-third of all money in circulation. Since 1865 other duties such as apprehending forgers of government checks, bonds and securities, have been added to its jurisdiction.

"Retail merchants often unknowingly aid the forger of Government checks by failing to request proper identification," according to the Secret Service, "The merchants suffer the loss from forged checks they cash."

Many losses can be avoided, the law enforcement agency concluded, if the merchant asks himself these questions:

- Is it a type of identification worthy of confidence?
- Does the identification belong to the person presenting it?
- Does the identification appear to be genuine and unaltered?
- Would considerable effort and time be required to obtain such identification?
- Is the personal appearance of the endorser consistent with the kind of person who would be expected to have such identification?

"Forgery losses would be greatly reduced if people who cash U.S. Government checks knew the endorser or required proper identification," Secret Service concluded.

Trade Forecast For 1973: Smaller Deficit As Exports Gain, Import Rise Slows

Faster Economic Activity Abroad, Currency Realignment Will Help To Spur Improvement

Some improvement in the U.S. trade position is anticipated in 1973 from the record deficit of more than $6 billion last year. The major factors leading to an improvement will be an acceleration in economic activity in Western Europe and Japan, large farm shipments to the USSR and other markets, and the strengthening in the United States' competitive position arising from the December 1971 currency realignment and from the slowdown in inflationary rates here compared to those abroad.

Based on the latest U.S. and foreign economic indicators, the U.S. trade deficit is estimated at between $3 and $5 billion for this year. The size of the imbalance depends importantly on the degree to which the beneficial effects of the new currency rates offset the stimulus to U.S. import demand stemming from the strong domestic economic growth projected for 1973. In any case, given the size of U.S. two-way trade—close to $120 billion this year—any projection of the trade balance is subject to a large margin of error.

The roughly 13 percent increase in U.S. exports in 1972, to $49 billion, was in sharp contrast to the 2 percent gain in the previous year. Part of the advance consisted of shipments early in the year of goods delayed by the 1971 dock strikes. Much more important, however, was a step-up in the tempo of economic activity in foreign countries, especially in Canada, which sustained the momentum of exports throughout the year. There was also a steep rise in foreign demand for U.S. agricultural products.

The rate of increase in exports is expected to accelerate further in 1973. Economic activity abroad is forecast to expand more rapidly and to have a wider geographic base than last year. Large deliveries of grains which were purchased last year by the Soviet Union will add considerably to the export total, while demand for U.S. farm commodities in other countries will also remain buoyant. This country's competitive position will continue to be enhanced by the monetary realignment to the extent that U.S. exporters reduce their prices in terms of foreign currencies or intensify their marketing efforts. Finally, considerably higher rates of inflation are anticipated in foreign countries than in the United States this year, adding to the price competitiveness of U.S. products.

The steep one fifth rise which brought 1972 U.S. imports to more than $55 billion stemmed largely from the vigorous upsurge in U.S. economic growth. A contributing factor was the appreciation of foreign currencies against the dollar, the immediate effect of which was to raise the value of goods from abroad before the volume of imports could be restrained by higher prices. The import total was swelled by unusually heavy demand for petroleum and lumber.

Forecasts indicate that U.S. economic activity in 1973 will continue buoyant—probably approaching the fast growth rate recorded last year—which will generate strong import demand again. Delayed effects from the 1971 currency realignment should, however, have a moderating influence on demand for foreign products. Higher prices stemming from strong inflationary pressures abroad this year will have a similar impact so that the 1973 import increase should be slower than in the past 12 months.

Continuing the pattern of the past several years, consumer goods will again lead the expansion in the value of imports. A projected acceleration in U.S. personal consumption expenditures in 1973, strong auto demand, and the attractiveness of many foreign products for price and quality reasons will likely stimulate a substantial increase in arrivals of consumer goods. Imports of industrial supplies are also likely to rise significantly again this year, with petroleum purchases accounting for a large part of the advance. Sharp increases projected for 1973 in investment outlays by U.S. companies indicate that another boost can be expected in capital goods imports, though demand should be moderated by the impact of the currency shifts.

Export gains in most areas

Shipments to Canada are expected to remain buoyant this year and will again account for a good part of the projected gain in U.S. exports. Prospects for an acceleration in Canadian investment spending augur well for a further rise in sales of machinery. Strong U.S. auto markets again this year should insure another substantial increase in exports of automotive products, particularly parts for assembly.

Shipments to Japan are also likely to register a large gain in light of the quickening pace of economic growth in that country. Moderate initial steps taken by the Japanese government to increase imports, including quota enlargements and tariff reductions, may generate some additional gains.

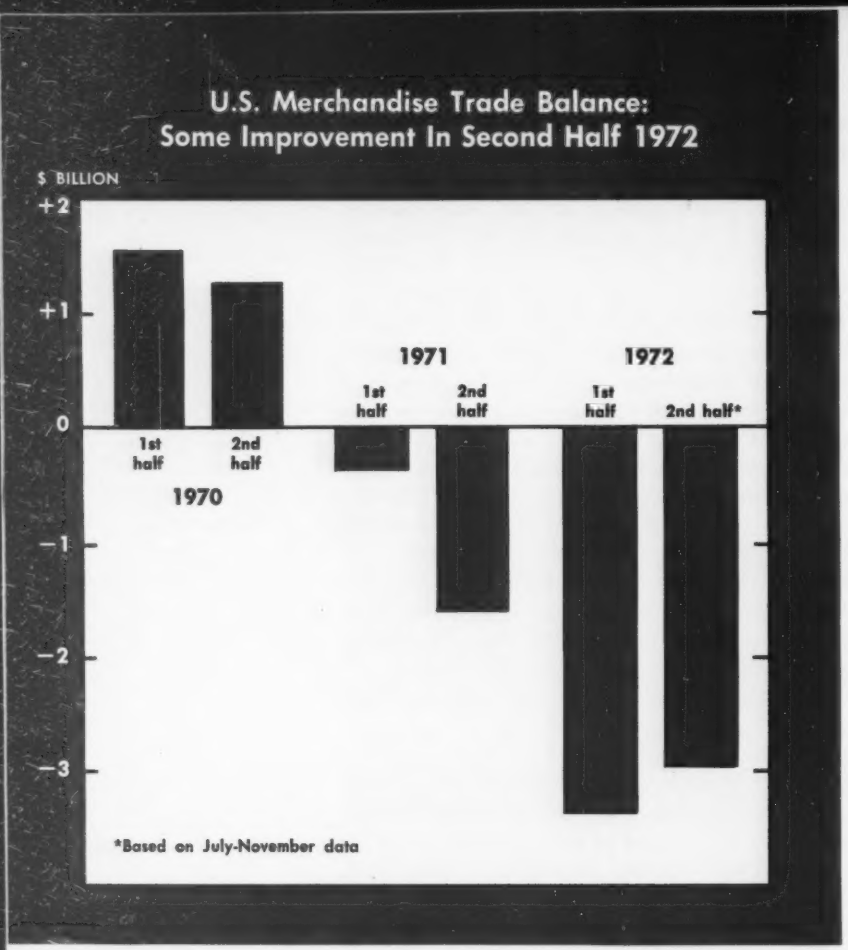
A faster rise is likely in exports to Western Europe. The outlook is for considerably stronger economic growth in the European Economic Community countries, especially West Germany, which should generate a significant advance in shipments after considerable sluggishness in the past two years. Prospects for shipments to the United Kingdom are uncertain and will depend in part on the economic effects of the recently imposed wage-price freeze in that country. If business confidence improves, rising investment should provide a boost to sales. While the accession of the United Kingdom, Denmark, and Ireland will have a profound effect in the longer run on the trading relationships of the United States and the Community, the impact in 1973 should be relatively small.

Exports to the developing countries will remain on an uptrend. Expansive economic conditions and the rising export earnings in a number of key markets are positive factors. A substantial advance should again be recorded in shipments to the American Republics. Strong economic growth in Brazil and Mexico, the United States' two largest markets in the region, will contribute importantly to the increase. The favorable exchange reserve positions of the oil-producing nations should generate a rise in exports to the Near East and Africa in the coming months. Exports to East and South Asia will probably advance again, mainly under the stimulus of growing industrialization in the area. Moreover, grain sales to India will increase, following large declines in the previous two years.

Continuing heavy grain deliveries to the Soviet Union will be the major factor behind the expected increase in exports to the East European communist countries. Efforts toward developing more normal economic relations with these nations should produce gains in sales of other products as well.

Machinery sales to lead

As in 1972, the expansion of nonagricultural exports will be spearheaded by machinery. Market factors contributing to the expected strong machinery export performance will be similar to those operating over the past year. Large investment outlays abroad in a number of industries will spur exports of many types of equipment. Another positive factor will be substantial increases in shipments of parts by U.S. companies to their



foreign affiliates where they are assembled into finished products. Continued growth can be expected in sales of equipment in which U.S. manufacturers hold a technological edge over foreign competition. Finally, machinery shipments should increasingly benefit from the 1971 monetary realignment.

Continued petroleum exploration, spurred by rapidly expanding world energy requirements, should insure another strong advance in exports of drilling and oilfield equipment. Last year, these shipments increased by about one third, reflecting heavy demand in all of the major oil-producing areas. Benefiting from additions to foreign electrical power facilities, shipments of power machinery and switchgear should record further gains in the months ahead, but probably at a slower pace than last year.

Another rise is anticipated in exports of farm machinery which climbed strongly in 1972 following a sluggish performance for a number of years. The increase will be based mainly on a buoyant world market for agricultural products that is expected to stimulate capital investment at the farm level. An advance is also projected for construction equipment exports, much of which, as with farm machinery, consists of parts delivered to foreign affiliates. Most of the strong advance in shipments of electronic components last year was in semiconductor parts to U.S.-affiliated foreign plants for further assembly. This outflow is expected to rise again in 1973. Also increasing will be exports of integrated circuits, particularly the advanced types used in computers and calculators where U.S. technology dominates.

After two years of relatively slow growth, exports of computers and parts should gain momentum in 1973. This outlook stems mainly from prospects for improved business conditions abroad. Sales of main-frame computers will probably rebound from last year's decline, but much of the anticipated growth will be in peripheral equipment and computer parts.

The increase last year in exports of transport equipment was held to a modest level by a sharp drop in aircraft deliveries which offset much of the increase in automotive shipments. This year, exports should advance at a faster rate. Expectations for another year of buoyant auto sales in this country indicate a rise in automotive exports to Canada. Some rise in sales of civilian aircraft and parts is projected. In contrast to the drop last year, deliveries of large jet transport planes should at least remain even with 1972 levels, according to current delivery schedules. Shipments of parts will continue on an uptrend. Sales of two new medium-range wide-bodied transports will dominate exports of the larger planes this year.

The outlook is for another moderate rise in sales of chemicals, which recorded a 6 percent advance last year. Shipments of drugs and fertilizers will expand, as will those of organic chemicals and plastic materials. Nevertheless, new foreign productive capacity will probably preclude any steep growth in exports of the latter two items.

Steel exports could record another increase, since world demand is projected to strengthen somewhat in the coming months. Improving markets for steel will also probably stimulate coal exports, which showed little increase last year in quantity.

Boom in farm sales

The upsurge in exports of agricultural products currently underway is expected to continue well into 1973. The major impetus of the boom is the $1.2 billion grain sale to the Soviet Union negotiated last summer. Roughly two thirds of this amount remains

to be shipped. Moreover, there are indications of further Russian purchases later in 1973.

Wheat exports will be in the forefront of the expansion. Much of the increase will be in shipments to the USSR, but prospects for sales to other countries are also bright. India and the People's Republic of China are likely to increase their wheat purchases from this country. Competing supplies from Australia will be lower in 1973.

Soybean and corn exports should also advance, reflecting growing world demand for animal feeds. Adverse weather conditions in a number of Southeast Asian countries have substantially reduced rice production in the region and U.S. exports of this grain are also expected to increase again.

Import slowdown seen

Another increase is anticipated in consumer goods imports, but, if higher foreign prices further retard purchases as expected, this year's increase should be considerably less steep than that recorded in 1972. Last year, strong demand and higher prices stemming partially from the revaluation of foreign currencies combined to boost the value of consumer goods arrivals by about one fourth. The rate of growth in these arrivals slowed considerably in the latter half of the year, however, suggesting that the demand-dampening effects of exchange rate changes were beginning to be felt.

In light of forecasts of buoyant car sales, prospects are for another sizable increase in the months ahead in imports of automotive products, both from Canada and from other countries. Increased competition from domestically produced sub-compact models was mainly responsible for the drop in the number of foreign-type cars imported in 1972. The value of purchases rose, however, due to higher prices and a shift in the product mix toward more expensive models. Vigorous competition by U.S. producers in the small car market and increased prices for foreign cars should hold down the rate of expansion.

Large-scale production abroad of tape recorders, radios, and television sets under American labels, and strong consumer demand, will lead to another expansion in receipts of these products. Rising foreign prices and the opening of manufacturing facilities in this country by overseas companies, however, should slow the rate of increase.

The expected high level of U.S. business activity, along with continued strong demand for key commodities, will lead to another rise in imports of industrial supplies in 1973. Import quotas for petroleum have yet to be announced, but another substantial increase in arrivals, probably larger than last year's one third rise in value, is to be anticipated. The advance this year in lumber entries may be less rapid than in 1972, as residential construction will not be so buoyant and some expansion in lumber production here is also expected.

Capital goods to decelerate

Another increase in imports of capital goods is likely, stimulated by a projected strong increase in U.S. plant and equipment expenditures. Some deceleration from last year's rapid rate of increase may be anticipated, though, as the effects of the currency realignment become evident. The inflow of textile machinery was especially heavy in 1972, but should stabilize since foreign-owned facilities will begin production in this country. Arrivals of office machines will increase again as recently-opened U.S. plants in Canada continue to ship computer-related equipment here.

Imports of trucks from Japan and from U.S. subsidiaries in Canada are expected to rise further. Another increase is projected in aircraft engine arrivals from the United Kingdom for incorporation in one of the new wide-bodied jets produced in this country.

The increase in food and beverage imports should be more moderate than last year's 15 percent in the absence of unfavorable world supply and price developments. The value of fish purchases will increase somewhat less rapidly since stocks are generally larger and price rises should be less sharp. Meat imports, which rose strongly in 1972, are expected to advance again, but not so sharply. Although quotas remain suspended on fresh red meat, our largest type of import, foreign supplies are not expected to be big enough to allow for further increases of the magnitude of last year's. Large coffee inventories built up late in 1972 may prevent a rise in import quantities, but higher prices will probably cause the value to grow. Sugar purchases are also expected to advance in value since price increases will result from a reduction in world supplies.

The foregoing U.S. foreign trade forecast for 1973 was prepared by the International Trade Analysis Staff of the Commerce Department's Bureau of International Commerce.

Ocean Canyon Studies Provide Basis For New Waste Dumping Tasks

Scientists Stress Need For Further Research After First Probes To Detect Ecology Damage

Discoveries of potential importance to industries and communities interested in disposal of industrial and municipal pollution, and also to the Atlantic fishing industry, are being made in various undersea canyons cut into the continental shelf and reaching into the deeper waters of the ocean.

Studies of the undersea canyons by scientific research teams are part of a large body of exploration designed to learn more about the adjacent Atlantic, the behavior of its waters, and its ecology.

Some of these investigations on the continental shelf, undertaken as part of the research responsibilities of Commerce's National Oceanic and Atmospheric Administration (NOAA), are also providing some of the factual information that will be needed to carry out the provisions of the Marine Protection, Research, and Sanctuaries Act of 1972, generally referred to in marine circles as the ocean dumping legislation.

Under the law, NOAA is authorized to undertake a continuing program of research and monitoring on the effects of ocean dumping and to submit an annual report on this activity to the Congress. Work done under this provision is viewed as a means of developing information that will directly contribute to decisions made by the Environmental Protection Agency and the Army Corps of Engineers concerning regulations of ocean dumping.

In the case of the New York Bight, where the Hudson Canyon is located, and where continuing NOAA research has been undertaken, a key issue is whether to continue to dump at the existing, already degraded sites or whether to move some of the existing sites to presently unpolluted but less biologically productive areas further offshore pending development of alternative means of disposal of sewage sludge and the industrial waste

from the New York metropolitan area. NOAA is working with EPA and the Corps of Engineers, the agencies charged with regulatory and permit responsibilities, to formulate the research and monitoring programs relevant to regulatory decisions.

The ocean dumping research and monitoring program to be carried out under the new law is expected to consist of three categories of work:

1—Detailed interdisciplinary study of selected sites. At these sites, NOAA scientists will attempt to determine rates and mechanisms of disposal composition, and accumulation of wastes as affected by physical and biological processes, and the impact of these wastes on the environment.

2—Development of a broader program for monitoring impact at a wider range of sites. This may involve measuring the distribution of contaminants in sediments and organisms as well as the presence of indicator species on a periodic basis, so as to gain an appraisal of trends.

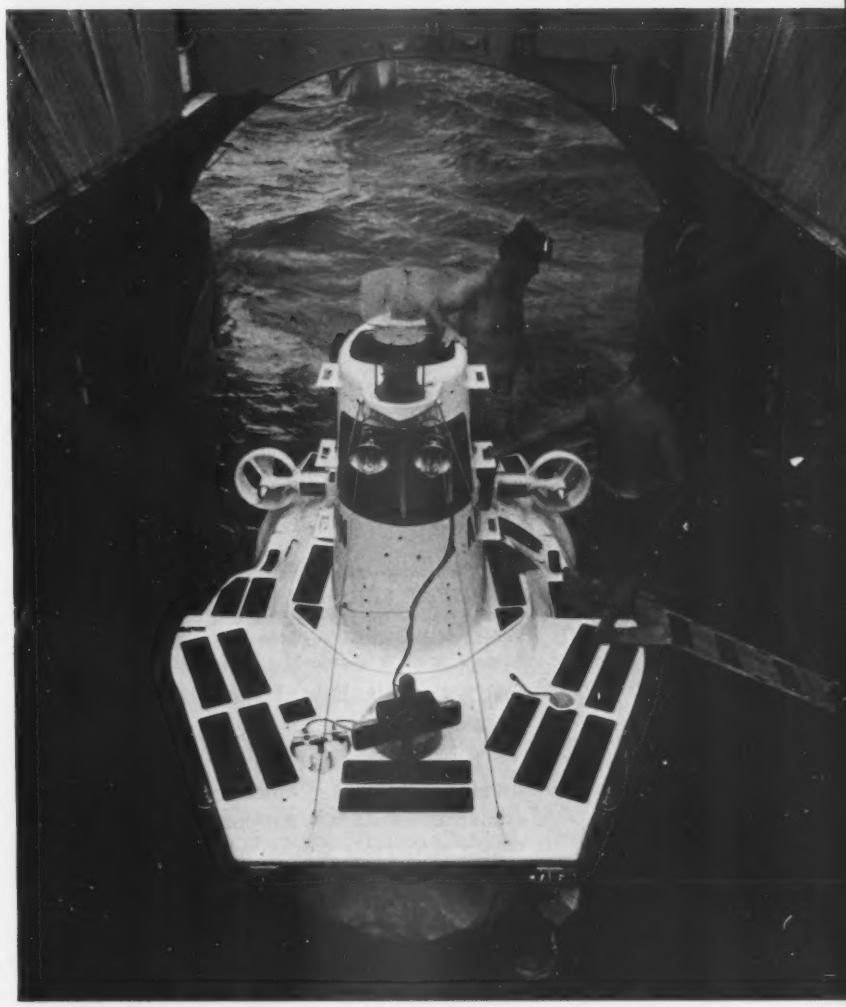
3—An overall evaluation of existing information from all sources.

In addition to the domestic legislation, the U.S. has taken the lead in encouraging international cooperation in problems of ocean dumping, and actively assisted in drafting an ocean dumping convention in London during October and November 1972. The U.S. was the first of several nations that signed the convention, an action that shows the deep concern for the international as well as the domestic aspects of ocean dumping problems.

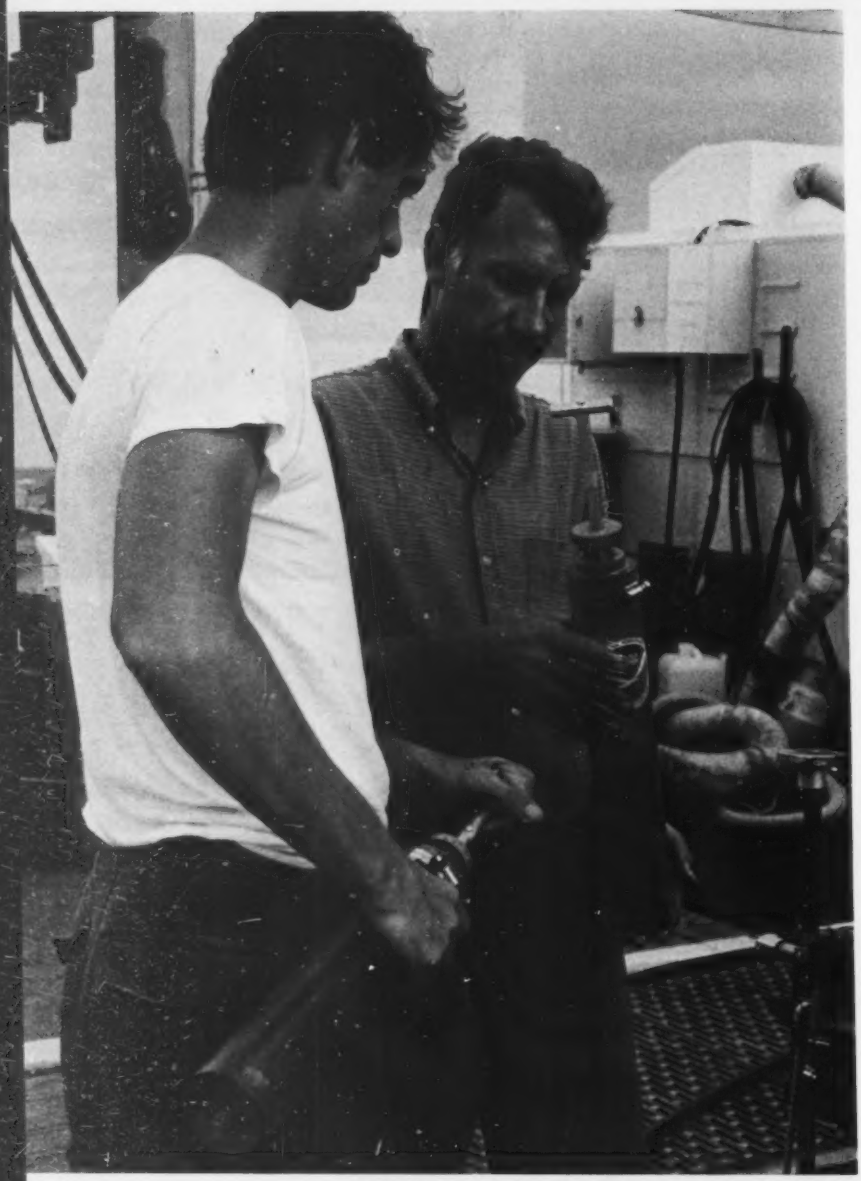
Hudson Canyon

There are a number of canyons along the Atlantic seaboard. Special attention is being directed to the Hudson Canyon, which cuts into the edge of the continental shelf about 120 miles southeast of New York City and extends about 50 miles more into water 10,000 or more feet deep. Research work also is being done in the smaller Wilmington Canyon, which breaks into the shelf some 70 miles off Cape Henlopen, Delaware, and into the Great Abaco Canyon, which lies about 35 miles off Great Abaco Island in the Bahamas.

At stake in the studies are questions as to whether waste materials pumped out into the canyons would wash on out to sea, or wash back in some degree or under certain circumstances, and what effect these materials would have on the ecology of the areas



UNDERWATER OBSERVER — *The Navy-owned* Alvin *is returned from deep water explorations to its mother ship, shown below, which carries the small submersible to each ocean assignment.*



SEDIMENT CORE—*Dr. George H. Keller (right) who headed up the Hudson Canyon research is shown discussing a sediment core from the sea bottom with a marine geologist at sea.*

into which they were dumped, and particularly on the fishery resources of the areas.

There appears to be a variety of judgments about these questions. Considerable evidence exists to support the belief that waste materials would wash on out to sea, but indications of a backwash also are reported.

Scientists who have made a study of the problems involved feel that more information is needed before reliable answers can be reached.

The canyons have been found to contain large concentrations of various species of fish, crustaceans, and shellfish. Among the fish species found in the more shallow waters adjacent to the Hudson Canyon is the yellowtail flounder, for which harvesting quotas have now been established, because of depleted stocks, by the International Commission for Northwest Atlantic Fisheries, a group that attempts to maintain some semblance of order in the intensive fishing of the western Atlantic waters. A ridge in the Hudson Canyon was discovered to be honeycombed with small caves that housed a large number of deep-sea red crabs, which measure up to 2½ feet across. The flesh of this crab resembles lobster meat, and is said to be delicious. It is harvested to a certain extent at the present time, but generally is looked upon as an unexploited resource. Also found in some of the explorations was the squat lobster, a small crustacean whose tails are said to be a delicacy.

Seasonal migration

Fisheries biologists believe that various species of fish may migrate seasonally in and out of the Hudson Canyon, seeking at times the protection of its warmer waters and attractive habitat. Whales are said to appear seasonally in the canyon area. In winter, scientists explain, the canyon waters are warmer than the adjacent coastal waters, because the mixing of the colder coastal waters and the warmer oceanic waters is accelerated. The coastal waters warm up in summer and become cold in winter, while the oceanic waters have a more stable temperature.

Fishing fleets of Russia and a number of other European nations, as well as Japan, are said to move through the canyon waters. Severe depletion, not merely of the yellowtail flounder, but of a number of other fish species formerly abundant in the western Atlantic is attributed to decline in stock of young fish, possibly due to water temperature and other environmental changes, as well as to overfishing by U.S. and foreign fishermen. Consequently, efforts are being made to establish a more effective international control system.

The Hudson Canyon is described as one of the most prominent seafloor features of the American continental shelf. It is the outer portion of the Hudson sea valley, an undersea furrow reaching to the edge of the shelf from the mouth of the Hudson River. While the canyon cannot be seen, it is said to be more spectacular than the Grand Canyon, equal to it in depth but with more precipi-

tous sides. It is less than half as wide at the rim as the Grand Canyon. The rim lies about 500 feet beneath the surface of the Atlantic, and beyond the rim the water plunges downward to a depth of at least 8,400 feet. The canyon is a mystery of the deep, representing features which no scientific facts can fully explain.

A scientific research team led by Dr. George H. Keller of Commerce's National Oceanic and Atmospheric Administration (NOAA) has collected evidence indicating that sediments, including pollution dumped in relatively shallow water, are carried down the canyon by currents of about one-half mile an hour.

"We are very excited about our findings in the canyon," Dr. Keller says. "It is far from a 'dead' canyon, as had been thought previously. Actually there are currents flowing both up and down the canyon, and our work indicates that fine material, probably from the Hudson River or the offshore dump sites, moves across the continental shelf and out to the deep-sea basin by way of the canyon."

The research team examined the canyon in two series of dives with *Alvin*, a Navy-owned submersible operated by the Woods Hole Oceanographic Institution. The dives, which are part of NOAA's Manned Undersea Science and Technology Program, involved eight transects of the canyon in June 1972, and seven additional dives in September, to depths of up to 6,000 feet.

By the use of *Alvin*, the scientists were able to observe bottom processes first hand, as well as to make selective current and sediment measurements. By means of a recording device, they have carried out seismic reflection profiling to determine the internal structural characteristics of the canyon sediments. They have sampled the physical and chemical properties of the sediment, and made biological population studies. They also took hundreds of bottom photographs.

Erosion zone

The scientists found that the canyon head is a zone of erosion where currents move the sediments across the canyon floor. In this comparatively shallow area, the bottom consists of sand and well-rounded pebbles, much the same as might be seen in a stream bed. Further down the canyon, at depths greater than 950 feet, the sediment becomes soft and takes on a fluffy appearance at the bottom. Along this portion of the canyon, out to depths of about 4,000 feet, a 10 to 15-foot blanket of very turbid water covers the bottom. Material in this mass is so thick that scientists often could see nothing from the *Alvin* viewing port.

This mass is believed to represent the movement of the fine sediment and associated materials out through the canyon into deep water.

Bottom currents within the canyon were shown to be stronger than anticipated, frequently reaching speeds of more than one-half knot. Bottom current measurements of up to 2½ days' duration showed flow both shoreward and down the canyon, indicating that flow even far out to sea and at depths of 6,000 feet is strongly influenced by the tides. However, the fastest currents proved to be traveling down canyon toward the deep sea.

Higher concentration

Bottom organism-food relationships found in the sediments revealed a much higher concentration of food organisms living in the bottom of the canyon than has been reported elsewhere in the North Atlantic or the Gulf of Mexico. Scientists believe this apparently is caused by the greater abundance of pollutants flowing from the near shore out through the canyon.

Proposals have been made for building conduits that would carry waste materials out to the canyon heads in the belief that they would flow on out to the deeper ocean. New Jersey, for example, is reported to be considering piping wastes out to one of the offshore canyon heads.

"It is best," however, Dr. Keller observes, "that we know more about the dynamic processes in the canyons if people are planning to use them as a pipeline to the deep sea."

In addition to these investigations by marine geologists of NOAA's Atlantic Oceanographic and Meteorological Laboratories, biologists and fisheries specialists of the National Marine Fisheries Service have had portions of the waters in the Hudson Canyon areas under biological scrutiny.

NMFS scientists point out the important possible implications of waste disposal on fisheries, and affirm that much more information is needed than is available in order that sound decisions may be made about management of the living marine resources in the area, and about ocean dumping activities.

DOMESTIC BUSINESS REPORT

- **Phase 3—A Return To Competitiveness**
- **Printing Firms Ready For Upsurge**
- **Family Purchasing Power Doubles**
- **Public Opinion On Productivity**
- **Consumer Patterns Under Study**

Easing Of Controls Boosts Competition

American businessmen are willing to cooperate to make the new voluntary wage-price controls a success, a Commerce Department official said in describing the initial reaction of businessmen in the first few days following announcement of the Phase III program.

Dr. Peter C. Manus, Acting Assistant Secretary for Economic Affairs, said, "Business executives generally are opposed to controls in principle and they are well aware that our competitive, market system has worked well for many, many years. But they also recognized the need for the temporary restrictions imposed over the past year and a half, and, following the success of that program, they are now willing to cooperate so that further progress can be made in curbing inflation. This is supported by reports we have received from businessmen as well as by my personal contacts over the past few days."

Manus said that continued cooperation on the part of both business and labor was more important than ever during Phase III now that mandatory controls have been removed from most economic functions in the economy.

In announcing the new program, President Nixon said that success of the new policies will depend "on a firm spirit of self-restraint both within the Federal Government and among the general public." The overall goal, he said, is "a further reduction in the inflation rate to 2½ percent or less by the end of 1973."

The voluntary system will apply to the entire economy except for the food, health care, and construction industries, and it will be similar to the system used during the past year by the Committee on Interest and Dividends.

The President said that "highly successful program" would be retained, with Arthur Burns, Chairman of the Federal Reserve Board, continuing as chairman and with the Department of Commerce continuing to operate the dividend portion of the program.

The White House announcement

said that prospects are exceedingly favorable for further economic expansion and reduced inflation in 1973 and 1974. Two prospective "trouble spots" were mentioned however.

"One is that Federal spending may be so pumped up that the same forces are released that caused the earlier inflation," the announcement said. "The other is that food prices may continue their recent rapid rise. The Administration will resist both of these dangers vigorously."

For the present, all businesses except those in food, health and construction were asked to comply voluntarily with the existing general guides on prices. Costs should not be passed on in price increases if the firm's profit margin exceeds the base-period profit margin. As an alternative, however, companies may increase prices to cover costs without regard to the profit-margin guide if the increases do not average more than 1.5 percent a year. Also, the base period was revised to include any year concluded after Aug. 15, 1971.

The regulations previously in effect with regard to wage increases will serve as guides under the voluntary program for the present.

The bureaucratic machinery will be reduced substantially with the termination of the Pay Board and Price Commission and the shifting of their staffs to the Cost of Living Council, which will have primary responsibility.

It is estimated that the Economic Stabilization Program personnel will be decreased from the present 4,000 to 2,000 positions.

The Cost of Living Council will continue to require some 3,500 large companies to keep records, and 800 of these will be required to file quarterly reports so that mandatory restrictions can be imposed if necessary. On wages and salaries, all employee units of 1,000 or more will be required to keep records and those of 5,000 or more must file reports on wage rate changes.

President Nixon appointed John T. Dunlop of Belmont, Mass., as director of the Cost of Living Council to succeed Donald Rumsfield, who has been nominated to be U.S. Permanent Representative on the Council of the North Atlantic Treaty Organization. Dr. Dunlop has been chairman of the Construction Industry Stabilization Committee, which was established in early 1971 to improve the labor-management bargaining structure in that industry and to bring the rate of wage increases in the industry into line with the rate for the economy as a whole.

The construction committee will serve as the pattern for new committees that will oversee wage-price developments in the health and food industries.

One of the most important groups in the Phase III structure is a Labor-Management Advisory Committee, which will consult with Dunlop and the Cost of Living Council on setting voluntary standards for pay increases.

Named to the Labor-Management Advisory Committee were:

I. W. Abel, of Pittsburgh, President of the United Steelworkers of America, Pittsburgh.

Frank Fitzsimmons, of Washington, D.C., General President of the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, Washington, D.C.

Paul Hall, of Westwood, N.J., President of the Seafarers' International Union of North America, Brooklyn.

George Meany, of Bethesda, Md., President of the American Federation of Labor and Congress of Industrial Organizations, Washington, D.C.

Leonard Woodcock, of Detroit, President of the International Union of United Automobile, Aerospace, and Agricultural Implement Workers of America, Detroit.

Stephen Bechtel, Jr., of Piedmont, Calif., President of Bechtel Corporation, San Francisco.

George Shultz
Secretary of Treasury

Edward Carter, of Los Angeles, Chairman of the Board of Broadway-Hale Stores, Inc., Los Angeles.

R. Heath Larry, of Mt. Lebanon, Pennsylvania, Vice Chairman of the Board of United States Steel Corporation, Pittsburgh.

James Roche, of Bloomfield Hills, Michigan, Member of the Board of Directors of General Motors Corporation, Detroit.

Walter Wriston, of New York, New York, Chairman of First National City Bank, New York, New York.

In reviewing economic developments, President Nixon said that the rate of inflation of 6 percent in 1969 had been cut in half and that the United States now has the lowest rate of any industrial country in the free world.

"In the last year and a half," he said, "this decline in inflation has been accompanied by a rapid economic expansion. Civilian employment rose more rapidly during the past year than ever before in our history and unemployment substantially declined. . . .

"In short, 1972 was a very good year for the American economy. I expect 1973 and 1974 to be even better."

Study Finds Varied Views On Value Of Productivity

Appealing to pride in their work may be one way to alter the public opinion of Americans on productivity.

This is one of the conclusions that can be drawn from a study—"The Public's General View of Productivity"—conducted by Louis Harris & Associates for the Department of Commerce and presented to the National Commission on Productivity. The Advertising Council has offered to assist the Commission with a multi-million dollar educational program to acquaint Americans with the meaning of increased productivity and its current important position in the national economy.

Lou Harris reviewed the survey's results at a recent Commission meeting. The survey indicated that a majority of Americans think that increased productivity is good for the nation as a whole but very few people think that they or anyone else is doing very much about productivity.

Case for productivity

Thus, aside from appealing to Americans' pride in their work it also appears that a direct approach is needed to convince people that their own productivity can be increased.

The most encouraging part of the survey was the response to the statement:

"The Nation as a whole benefits from increased productivity through general economic growth."

Seventy-three percent of those interviewed agreed with the statement, 13 percent disagreed, and 14 percent weren't sure.

The responses to another part of the survey indicated that offering incentives is the best way to convince individuals to increase their own productivity.

In response to the question "under what conditions would you be willing to work harder":

Sixty-four percent said they would be very willing to work harder if pay were increased; 61 percent would be very willing to work harder if they had more to say about the kind of work they do and how they do it; 59 percent, if they were given additional schooling or job training; 58 percent, if they could work more independently; and 46 percent would be willing to work harder if they worked one day less each week than they now do.

Twain must meet

The survey also showed that although discussions of productivity reveal traditional and basic divisions between labor and management, cooperation between these two groups is essential if any program to increase productivity is to be successful.

The survey showed that a majority think increased productivity benefits management and the working man has the least to gain. People who are the least likely to be stockholders are the most suspicious of campaigns to increase productivity.

The response to the statement that "companies benefit from increased productivity at the expense of workers," was:

Sixty-seven percent of those interviewed agreed, 23 percent disagreed and 10 percent weren't sure.

Of the professionals, 60 percent agreed while only 47 percent of the executives agreed with the statement.

But 80 percent of the hourly wage workers and 80 percent of the union members agreed.

Thus, the task of the Productivity Commission will be to convince the public that the benefits of increased productivity will accrue generally to the Nation as a whole, but equally as important that they will accrue specifically to each individual whether labor or management. —*National Commission on Productivity*

Commerce Helps American Samoa Face Urbanization

The way of life that has been long characteristic of the Pacific island territory of American Samoa is gradually changing.

New jobs are expected for Polynesians and work is under way to eliminate certain health hazards that have recently appeared.

The improvements arise from a partnership between the government of American Samoa and Commerce's Economic Development Administration to meet new needs of that Pacific island community to ward off problems from a hard to imagine trend there toward urbanization.

To speed the program, while preserving the scenic wonders of the island, EDA has approved:

A $980,000 grant to develop an 80-acre industrial park at the village of Tafuna.

A $530,000 grant to improve water systems in 20 villages on five islands.

The industrial park is to be located adjacent to the Pago Pago International Airport. The site is owned by the government of American Samoa, which will lease land to industry locating plants there, thus relieving the territory's dependence on tourism and shipping for its economic support.

The grant for improved water facilities was awarded to create new jobs in areas of high unemployment.

It was requested because of "alarming statistics" regarding emigration from the islands and migration from outlying villages.

Facelifting Keeps Everything Up To Date In Kansas City

What has been described as the largest per capita construction program in the United States is under way in Kansas City, with many projects scheduled for completion in 1973.

The construction — essentially "people-oriented" projects — totals $3.4 billion, more than $2,600 for each of the 1.3 million persons in the six-county Greater Kansas City area. The middle American city's massive face-lifting is a model of cooperation between the private and public sector. More than 75 percent of these projects are financed by private investment.

Facilities being built or just completed include schools, junior colleges, university medical centers, hospitals, stadiums, a convention center, an international airport, hotels, inner-city residential communities, juvenile justice facilities, a Disneyland-type theme park, innovative retail centers and apartment complexes, streets, highways and bridges.

Residential building

Residential construction is estimated at more than $300 million in 1972 and expected to increase by 40 percent in 1973.

Some of the 1973 activities will include:

- Groundbreaking for $70 million expansion of the University of Kansas Medical Center.
- Start of development of $300 million Northeast Industrial Park.
- Completion in April of the Kansas City Royals 42,000-seat baseball stadium in Harry S. Truman Sports Complex.
- Dedication in April of the 730-room Crown Center Hotel.
- Completion in the fall of Phase One of Crown Center's $200 million urban development project. This phase comprises about half the total cost of the project.

"People-oriented" construction projects aren't the only thing Kansas City is building. Its community service agencies are constantly developing new programs to help people.

For example, the Black Economic Union was among the first approved for the special impact program of Commerce's Economic Development Administration.

Two grants totaling $189,800 were made by EDA to the Black Economic Union.

CONSTRUCTION BOOM—*Typifying the $3.4 billion investment in new construction in Kansas City is Crown Center, a $200 million, 85-acre model urban community taking shape on the edge of Kansas City's downtown.*

PLANE GEOMETRY—*At Kansas City International airport are three circular terminal buildings. This one is shown from the 15 stories high control tower. Planes will be berthed around the perimeter of each building while automobiles drive right into the "infield," for minimum distance between auto and departure arrival ramp.*

New Survey Will Give Clues To America's Buying Habits

Current purchasing patterns of consumers are being studied in a census survey of the buying habits of Americans.

The nationwide Survey of Consumer Expenditures, which enters its second year this month, will enable the Bureau of Labor Statistics to update its Consumer Price Index which measures month-to-month price changes.

Seventeen thousand households in 78 metropolitan statistical areas and 100 other areas—rural and urban — have been scientifically selected to provide a representative sample of all households in the Nation.

The sample has been divided into two equal groups. Interviewing for one group began in January 1972 and will continue through March of this year. Each household is interviewed five times at three-month intervals.

Following the same pattern, the second group will be interviewed from this month through March 1974. Thus, for the next three months both sets will be visited.

Question on Spending

The questions ask for detailed information on most expenditures for goods and services that have been acquired during the period covered by the survey. There are questions on expenditures for alterations and repairs to the home, for fuels, utilities, household help, clothing, food and beverages, major household equipment such as refrigerators and washing machines, for house furnishings, cars and other vehicles, out-of-town trips and vacations, insurance, medical services, school tuition and books.

Interviewers ask about rent, value of real estate owned, mortgage payments, and debts. Also, questions on work, experience and income of family members are asked. In short, the survey covers most expenditures made by the family during the survey period, as well as its income, assets, and liabilities.

Another 19,000 households within the same areas are taking part in a related survey which was initiated last June and will continue into June 1974. These householders are asked to record daily expenditures over a 14-day period in a diary. This survey will provide data needed on the many small day-to-day purchases that people cannot be expected to recall over a longer period.

New Booklet Lists Census Data Of Use To Community Leaders

Community leaders should be able to make more use of census data in solving local problems with the aid of a new practical guide published by the Census Bureau.

"Census Data for Community Action," provides background and examples of the application of data to community problems. The new booklet stresses the kinds of information found in the bewildering array of reports.

It lists all items of information collected about the population and its housing in the 1970 census and reviews, briefly, the types of questions asked on the census questionnaire—including those asked in every U.S. household and the additional queries asked in every fifth household.

Several examples are provided of the types of community problems that can be measured and analyzed through the use of census statistics. In one, the census results are used to evaluate the impact of alternate routes for an expressway on various neighborhoods in a community.

Another example shows how census data on age, education and other population characteristics can establish the need for adult education programs. A third indicates how census data can help in assessing a community's need for day care centers. Income figures, households headed by a woman, and the number of children under five years are all utilized in this analysis.

Copies of the booklet are available for 50 cents from the Publications Distribution Section, Social and Economic Statistics Administration, Washington, D.C. 20233.

—Census Bureau

First Quarter Aluminum Set-Aside Is Unchanged

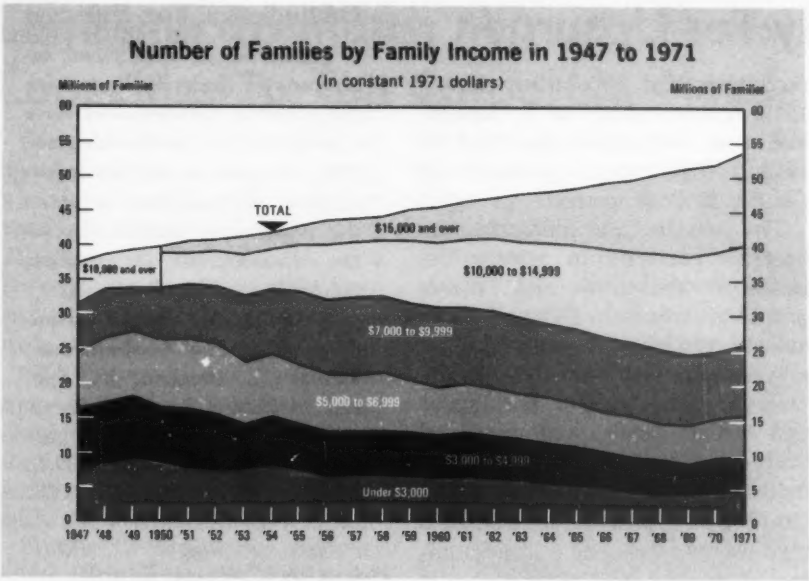
The aluminum set-aside for defense orders for the first quarter 1973 will be 125 million pounds, the same as the fourth quarter 1972.

Gary M. Cook, Deputy Assistant Secretary and Director of the Bureau of Competitive Assessment and Business Policy, said the first quarter 1973 set-aside represents approximately 4 percent of projected total industry shipments for the period.

The set-aside is established under the Defense Materials System to meet the estimated requirements of the Department of Defense, Atomic Energy Commission, National Aeronautics and Space Administration, and related defense programs.

Under DMS, defense orders are accorded priority. Priority (Authorized Controlled Material) orders for aluminum must be accepted by suppliers unless they exceed the set-aside established for individual producers, or specific provisions of the DMS regulations and orders allow rejection. Letters of notification previously issued to individual producers of aluminum controlled materials will continue in effect without change.

—Bureau of Competitive Assessment And Business Policy


Number of Families by Family Income in 1947 to 1971
(In constant 1971 dollars)
Millions of Families
Millions of Families
TOTAL
$15,000 and over
$10,000 and over
$10,000 to $14,999
$7,000 to $9,999
$5,000 to $6,999
$3,000 to $4,999
Under $3,000
1947 '48 '49 1950 '51 '52 '53 '54 '55 '56 '57 '58 '59 1960 '61 '62 '63 '64 '65 '66 '67 '68 '69 '70 1971

Purchasing Power Of U.S. Family Has Doubled Since World War II

The purchasing power of the typical American family has nearly doubled in the past 24 years, a new Census Bureau report shows.

Median family income, in terms of constant 1971 dollars, has increased from $5,480 in 1947 to $10,290 in 1971. This is an annual rate of increase of approximately 3 percent since 1947, the first year that money income figures were regularly published by the Census Bureau for the entire U.S.

Unadjusted for price change, median family income has more than tripled, from $3,030 in 1947 to $10,290 in 1971, according to the report. Thus, part of the increase was eroded by rising prices, but there was still a substantial net gain in real purchasing power.

Sustained rise

The report also shows how this sustained rise in family income has affected the income distribution.

While the total number of families increased from 37.2 million in 1947 to 53.3 million in 1971, the number of families with incomes below $4,000 (in constant 1971 dollars) declined from 11.9 million to 6.9 million over this period. At the same time, the number of families with incomes of $10,000 or more rose substantially, from 5.7 million in 1947 to 27.6 million in 1971.

In terms of purchasing power at 1971 prices, twice as many families had incomes under $4,000 as had incomes above $10,000 in 1947. This changed drastically, however, by 1971: almost four times as many had incomes above $10,000 as had incomes below $4,000.

A second Census report shows that since 1959, there has been a sizable reduction in the number and percentage of persons who are below the federally defined low income level — from 22 percent in 1959 to 12 percent in 1971.

As the number of low-income persons declined over the past 13 years, the composition of the low income population changed considerably. For example, the proportion of poor people who were 65 years old and over increased from 14 percent to 19 percent between 1959 and 1970. However, in the most recent years the number of aged in the low-income bracket decreased by 520,000, or about 11 percent, reducing the proportion of elderly among the poor from 19 percent to 17 percent in one year.

This marked decline in a short period was due in part to an increase in Social Security payments of approximately one-fourth between December 1969 and March 1971.

Ten percent

Ten percent of all families had incomes below the low income level in 1971, compared to 18 percent in 1959. In the past 13 years, the number of low income families headed by a man decreased by about one-half, while the number of low-income families headed by a woman increased slightly—by one-tenth.

In 1971, approximately two of five low income families were headed by a woman, while about one of every 12 of the families above the low income level was headed by a woman.

—Census Bureau

Note For Federal Contractors

The Viet-Nam Era Veterans Readjustment Assistance Act of 1972 requires Federal contractors and first-tier subcontractors to list job openings with the United States Employment Service.

The primary purpose of this law is to expand the job opportunities that the Employment Service can make available to Viet-Nam-era veterans.

Business firms that are not affected by this directive can make a significant contribution to the Jobs for Veterans Program through voluntary support and implementation of the law's specifications.

Full details of the law can be obtained by contacting the nearest Employment Service or Regional Manpower Administration office.

Printing Firms Ready For Upsurge

The printing and publishing industries entered the 70s on an economic plateau and the current upsurge in economic activity foretells a bright outlook, according to a Commerce Department quarterly report on "Printing and Publishing."

"The total value of shipments for the printing and publishing industries is expected to reach a record level of $30 billion during 1973, representing a 7 percent rise over shipments recorded in 1972," the report, written by Charles R. Cook, states.

The printing and publishing industries continue to mirror the Nation's economic and demographic trends. Demand for printed products is stimulated by a combination of population growth, rising school enrollment and income levels, and expanded business activities. Graphic arts industries are characterized by steady growth, stable employment, high wages rates, and a large number of small establishments.

The 15 industry groups classified as printing, publishing and allied industries provide employment for over one million persons with a total payroll approaching $10 billion. The hourly wage for production workers, an average of $4.49 in 1972, is the second highest wage rate among the 22 manufacturing industries.

—Bureau of Competitive Assessment and Business Policy

PRINTING FIRST—*For the first time in its history some copies of The Wall Street Journal are being printed on a modern high-speed web offset press. Asst. Production Mgr. Bill Langman (left) and Pressroom Foreman Bob Braun examine copies of the Midwest edition coming off the press at Highland, Ill.*

FULL VIEW—*A full view of the modern Metro-Offset Press at the Williamsport Sun-Gazette, Williamsport, Pa. Modern facilities are one thing that spurs the printing and publishing industry to higher and higher records of success.*

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints — the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

Housing Census Results Summarized In Booklet Designed For Students

"We, The Americans — Our Homes," third in a series of reports for school students on the 1970 census of housing in colorful illustrations and simple graphs.

Highlights of the 16-page booklet, produced by the Census Bureau, include figures showing: there were 10.4 million more homes in 1970 than in 1960; for the first time in U.S. history, there were more housing units in the suburbs than in central cities; blacks became home owners at a faster rate than whites during the decade; and great increases in the number of apartments and mobile homes.

Other booklets in the "We, The Americans" series in preparation cover such subjects as Spanish-Speaking Americans, American Indians, Youth, Women, Immigrants, Our Jobs, the Elderly, Schooling and Income.

The booklets are available at 35 cents a copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, or from Commerce Department field offices in major cities. A standard discount of 25 percent will be applied to all orders of 100 or more booklets going to the same address.—*Census Bureau*

Computer To Match Minority Firm's Capacities To Top Corporate Needs

Four hundred of the Nation's top corporations are participating in a new computerized program launched nationwide by the Small Business Administration to mate the capabilities of minority business enterprises with procurement needs of the corporations.

SBA's new minority vendors program will attempt to match the buying needs of the large corporations with the capabilities of minority-owned manufacturers, service firms and wholesalers.

"While it is now too early to gauge our progress," said SBA Administrator Thomas S. Kleppe, "we believe that this tremendous response from the large corporations will provide a valuable tool for expansion of opportunities in the minority business community."

Many of the Nation's large corporations have come to SBA expressing a willingness to buy goods and services from minority firms, Kleppe noted, but they had no reliable method of locating the proper minority firm when the need arose.

He also noted that a recent study of SBA minority enterprise borrowers showed that survival rates for borrowers in small towns and rural areas were higher than for those in larger cities.

"In regions of the United States with long-established minority communities, existing businesses had better survival prospects than elsewhere, but new firms had the same survival prospects as new firms throughout the country," Kleppe continued.

"A rather startling item turned up in the survey was the fact that a success in business was more closely related to business experience, particularly business decision-making experience, than formal education," the SBA Administrator continued further.

He said the study showed that the estimated survival rate for those who attended SBA's workshops for prospective small business owners was 76 percent.

"Business survival rates were highest for medical and health firms, laundry and dry cleaners, local truckers, beauty and barber shops, and apparel retailers," Kleppe said.

Conference To Study Intermodal Shipping Of Frozen Exports

Intermodal shipment of refrigerated food products in U.S. export trade will be the subject of a conference, sponsored by the Maritime Administration, in Washington, D.C. Feb. 1.

Shippers, carriers, equipment manufacturers and government officials will discuss present conditions in this trade and the possibility of opening new or expanded markets for U.S. refrigerated exports.

According to Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, the conference will focus on market potential, transportation capabilities, equipment performance and availability, applicable regulations, and trade policies. It will be held in the Commerce Department's Auditorium at 10 a.m.

Commodities under consideration include fresh vegetables, fruit, fish, meat, dairy products, and poultry.

Noting that the conference represents a response to new developments in refrigeration technology and expanding international trade relations, Blackwell said "With the advance of temperature-control technology and improved container materials, it is becoming increasingly attractive to ship perishable commodities between countries."

"Combined with the rapid and dependable transportation made available by intermodal containers, these developments provide American shippers with an ample opportunity to expand their overseas shipments of perishable foods," he added.

Following presentations by shippers and carrier spokesmen, attention will focus on refrigerated container equipment, with particular emphasis on container construction, refrigerated unit capabilities, and instrumentation. Potential markets will be discussed by representatives of the U.S. Department of Agriculture's Foreign Agricultural Service.

Other speakers will discuss quarantine regulations, fumigation techniques and the maintenance of product quality.

Maritime's Division of Intermodal Transport, Code M-711, Maritime Administration, Washington, D.C., 20235, is handling details of the conference.

—Maritime Administration

Calendar For Businessmen

Jan. 26—San Francisco — Western Shipbuilding Association annual meeting. Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, will speak.

Jan. 30—Quebec, Canada—Dominion Marine Association and the Lake Carriers' Association will hold a joint meeting.

Feb. 1—Wahington, D.C. — Maritime Conference on Reefer Container Technology.

Feb. 5 — New Orleans — 1973 National Conference of Water Resources Congress. Robert J. Blackwell, will speak.

Feb. 6 — New York — 13th annual Conference and Shippers Dialogue. Howard F. Casey, Deputy Assistant Secretary of Commerce for Maritime Affairs, will be the luncheon speaker.

SCIENCE & TECHNOLOGY REPORT

- **Proposed patent rule to implement new law**
- **Quieter truck cabs sought in noise tests**
- **Plans to send Mariner space probes to Jupiter, Saturn**
- **Ice forecasts are being expanded on Great Lakes**
- **Minicomputer speeds retrieval of patent information**
- **Patents of special interest**

X-ray Standards To Help Halt Skyjacking

As part of the worldwide attack on skyjacking, scientists at Commerce's National Bureau of Standards are in the process of developing new X-ray systems standards expected to prove valuable for manufacturers and for law enforcement organizations that plan to purchase X-ray systems for the detection and identification of weapons, explosives, and incendiary devices.

The voluntary performance standards are being developed for the National Institute of Law Enforcement and Justice, the research arm of the Law Enforcement Assistance Administration of the U.S. Department of Justice.

When developed, the standards will give potential users of X-ray systems a working description of the performance criteria that should be evaluated when purchasing X-ray equipment for weapons or bomb detection.

X-ray systems used for criminal investigations necessarily need to be of exceptionally high performance and high operating speeds. These characteristics are desirable whether the images are produced on fast processing film or on a television-monitored fluorescent screen. When searching baggage for dangerous weapons or explosives, time is important.

One manufacturer of such X-ray devices, Torr Laboratories, Inc., of Los Angeles, reports that there is virtually no resistance to X-raying baggage to detect weapons of passengers at airports. Tests carried out by the Air Force using that company's equipment at postal facilities in San Francisco and Oakland managed to sharply curtail the illegal shipment of weapons, explosives, and narcotics from the Pacific. Eventually it is expected to eliminate that problem altogether.

Bag inspection

Test runs conducted by Western Airlines and Pacific Air West Airlines using Torr equipment at Los Angeles International Airport have determined that the average bag inspection takes about 10 seconds, indicating that relatively little delay is encountered by boarding passengers.

At the National Bureau of Standards, X-ray systems under study are operated under two different sets of conditions. Used simply as a screening instrument, the system should be able to detect a potentially dangerous object or device and provide identification of the weapon or device. When used in a more detailed analysis, the X-ray system must define the components of a bomb that needs to be deactivated.

There are several problems involved in X-ray screening devices which must be taken into account in developing sufficient standards. Rapid analysis of a two-dimensional X-ray image requires a skilled operator, one who can distinguish between the normal, harmless materials and those containing suspicious objects. It is difficult, for

example, to distinguish between a normal battery-operated radio and one in which a bomb has been placed.

While screening systems must produce an image of good enough quality to enable general classification of objects, it is not the job of the screening operator to be able to detail the intricate workings of a device; that is left for the discrete X-ray system.

Since X-ray screening systems are generally stationary and operated indoors, with many people in close contact with them, effort must be made to protect them from radiation.

Positive identification

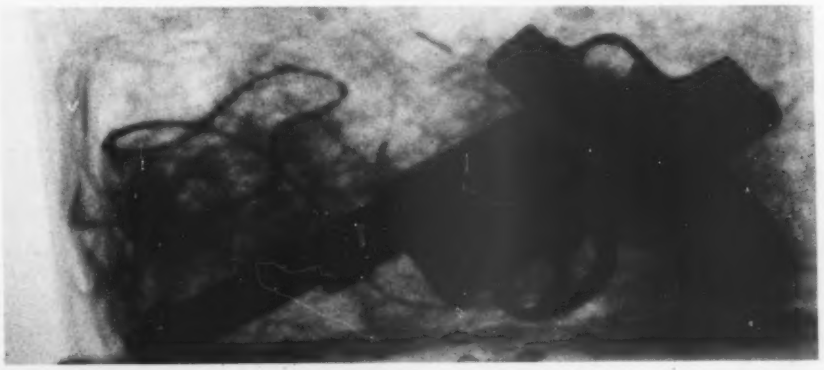
However, there are also portable X-ray units finding wide use among today's bomb disposal squads. These are first used to positively identify the bomb and then to determine the timing or firing mechanism and other critical internal parts in preparation for deactivating it. The system must be extremely sensitive so that every picture is sharp and complete in all details. And the portable units must be light enough to be carried by two men, operable under outdoor temperature extremes, and produce high quality images.

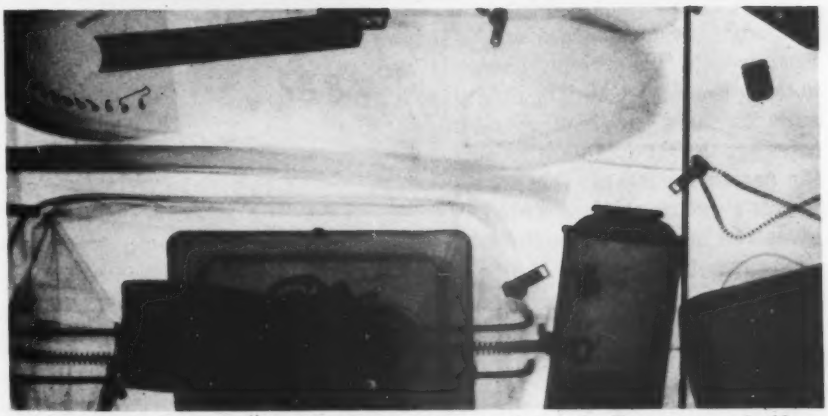
Since these devices are not in continuous operation, and because they are normally used by bomb disposal experts working in evacuated areas, radiation leakage is generally higher because of lack of shielding, but is still within the limits established for radiation workers.

Image quality

The performance standards being developed by the National Bureau of Standards will include sections on purpose, scope, definition of terms, requirements, and test procedures. While most of these are obvious, the requirements for a system's use include, for example, image quality, set-up and operating time, portability, radiation leakage, fire and shock hazards.

HANDBAG CHECK—*Passengers traveling Pacific Air West Airlines and Western Airlines have their hand-carried baggage checked for weapons in the Los Angeles International Airport by means of the Torrex II, an X-ray device which can check a bag every ten seconds. It is produced by Torr Laboratories of Los Angeles, Calif.*





WHAT THE CHECKER SEES—*The picture made of deadly weapons inside a suitcase by means of X-ray fluoroscopic inspection equipment alerts the checker to forbid the carrier from boarding the aircraft. Bottom photo shows a clock mechanism in a shaving kit. Note level of liquid in aerosol can and loose staples on shoe heel.*

The standards are not lists of instruments proposed for particular uses, but are characteristics that, in general, should be evaluated with respect to both the user's needs and the potentials of the X-ray system in question.

—National Bureau of Standards

Proposed Patent Rule To Implement New Law Aiding E. Europe Inventors

The public has until February 12 to comment on a proposed Patent Office rule to implement a new law (P.L. 92-358) permitting applicants from certain Eastern European countries to obtain the benefit of the filing dates of earlier filed inventor's certificate applications for their U.S. patent applications.

Signed by President Nixon last year, the law treats applications for inventors' certificates the same as those for patents for priority purposes. It thus implements a revision of Articles 1-12 of the Paris Convention, the predominant multilateral agreement in the field of industrial property, made at Stockholm in 1967.

It is expected that the new legislation will facilitate the growth of commercial and economic ties between the United States and the Soviet Union. The Soviets have considered this recognition of inventors' certificates an important aspect in the normalization of relations between themselves and the United States.

Predominant incentive

While both patent and inventor's certificate systems exist in some Eastern European countries, most notably the Soviet Union, Bulgaria and Romania, inventors' certificates are the predominant incentive for native inventors. When an inventor's certificate is granted, the invention belongs to the state; and in return, the inventor is entitled to both monetary compensation, up to 20,000 rubles ($22,000) in the Soviet Union, and certain privileges.

Foreigners interested in investing and protecting their inventions in these countries normally utilize their patent systems rather than seek an inventor's certificate. While nationals of the socialist countries are generally free to seek either a patent or an inventor's certificate, in practice, the overwhelming number of nationals opt for an inventor's certificate.

Fundamental reason

The establishment of a "right of priority" for patent applications was one of the fundamental reasons underlying the negotiation of the Paris Convention for the Protection of Industrial Property in 1883. Simply stated, the right of priority means that on the basis of a regular first application filed in a member state of the Paris Union, a later application filed in any of the other member states, within a period of twelve months, will be regarded as if it had been filed on the same day as the first application. In other words, such later filed applications will have priority over applications for the same invention which may have been filed during the intervening period. Additionally, these later applications cannot be invalidated by any acts occurring during the interval, such as, for example, publication, sale or use.

Under the new law, which applies this concept to inventor's certificates, a priority right on the basis of an inventor's certificate application would be obtained only where the country in which the inventor's certificate application was filed gives applicants generally the option to file for either a patent or an inventor's certificate. Thus, an applicant for an inventor's certificate in such countries could obtain a right of priority for his U.S. patent application similar to the way other nationals of Paris Union member countries may now do on the basis of an earlier filed foreign patent application.

Implementing the law

The Patent Office has proposed to implement this law by a rule published in the Federal Register on November 28, 1972. The new law requires the granting of priority where the applicant has the option to file for either type of grant. Under the terms of the proposed rule, the right of priority would be granted for applications for inventors' certificates where these involve particular subject matter for which an applicant in a country of earlier filing has an option to file for either a patent or an inventor's certificate. The rule is so limited because in certain countries which grant both patents and inventors' certificates to reward inventors, applicants are only able to apply for inventors' certificates as to certain subject matter, generally pharmaceuticals, foodstuffs and cosmetics. Where this is the case, an earlier inventor's certificate for this kind of subject matter would not be entitled to a right of priority.

Following final adoption of the rule implementing the new legislation, the United States will be in a position to deposit its letter of ratification of Articles 1-12 of the Stockholm Revision of the Paris Convention. The remaining Articles of the Stockholm Revision dealt with administrative reforms and did not require implementing legislation. The United States ratified those Articles on September 5, 1970.

—Patent Office

Puget Sound Salmon Catch High

Puget Sound (Washington) catches of fall or chum salmon this year amounted to 5.9 million pounds, nearly seven times higher than last year's catch, according to National Marine Fisheries Service, of Commerce's National Oceanic and Atmospheric Administration.

Quieter Truck Cabs Sought In Noise Tests Conducted At Wallops Island

Truck manufacturers may eventually have to produce quieter cabs for truck drivers as a result of noise level research at Commerce's National Bureau of Standards.

Noisy trucks are not only a problem to the people in the streets and highways where they operate but contribute to driver fatigue and may degrade the ability of the driver to perform his duties safely. If the noise is loud enough long enough, it can lead to partial loss of a driver's hearing.

To provide valid data on noise levels inside trucks, the National Bureau of Standards has made an extensive series of measurements on typical modern trucks. This study is sponsored by the Department of Transportation with the cooperation of the American Trucking Association.

Immediately, the research is expected to lead to development by the Transportation Department of a simple, single interior noise measurement that correlates well with over-the-road measurements, and which may be used in tests to insure adequate driver protection.

Test vehicles

Directed by William A. Leasure, Jr., a mechanical engineer in the Applied Acoustics Section of the National Bureau of Standards, a team of researchers made the noise measurements at the Wallops Island, Va., research runway operated by the National Aeronautics and Space Administration.

Fifteen trucks, 14 tractor-trailers and a delivery van, were used as test vehicles. Thirteen vehicles had diesel engines and two had gasoline with mileages running from under 2,000 to more than 360,000.

Interior measurements were made with a microphone located six inches from each ear of the driver. Data was recorded on a tape recorder carried in the cab. While the primary interest was in interior noise levels, exterior levels were also measured simultaneously with a series of five microphones placed on a line 50 feet from the center line of the truck lane and a sixth microphone located at 25 feet. These data are needed in order to evaluate the effect of total truck noise on the community.

Measurements were made on each truck during a series of stationary and moving tests. Interior measurements were made with windows open and closed. The stationary measurements were made while the engine was idled, accelerated at wide-open throttle to governed rpm, and at stabilized high

NOISE AND THE TRUCK DRIVER—*Electronics technician James Heinen (left) of the National Bureau of Standards records on tape the noise picked up by microphones six inches from the ears of truck driver Wally Drummond in tests conducted at Wallops Island, Va., to determine various noise levels suffered by the nation's truck drivers. The tests made for the Department of Transportation could eventually result in quieter truck cabs being produced in this country.*

idle, while the moving tests consisted of acceleration at full throttle to a maximum speed of 35 mph and deceleration at closed throttle.

The data show that in many cases the noise in the cab exceeded an A-weighted sound level of 90 decibels. During acceleration of one truck, for example, the noise level with windows open was 96 at the left ear, 94 at the right, the same numbers being obtained with the windows closed.

Set limit

The 90 dB(A) value is an important one since it is the limit set under the authority of the Occupational Safety and Health Act for noise exposure during an eight-hour work day. The intent of these regulations is to reduce the risk of permanent noise-induced hearing damage. Higher noise levels—up to 115 dB(A)—require shorter exposures.

The Department of Transportation proposes that these criteria be applied to protection of truck drivers. The Department hopes to make a single interior stationary measurement that correlates well with over the road measurements. The NBS data provide solid basis for such a procedure. A preliminary Transportation Department proposal is to make a right ear, closed window measurement while the engine is run at fast idle. However, more over-the-road data, which Transportation is presently acquiring and evaluating, are needed before a firm correlation can be established.

—National Bureau of Standards

Black Marlin Surprise Catch

Commercial fisherman A. C. Sears has harpooned the first black marlin ever landed in California waters while hunting swordfish. The 638-pound, 10½-foot-long fish was caught east of San Clemente Island at least 800 miles north of the species' usual habitat. Heretofore the tip of Baja California was considered the northernmost boundary for black marlin.

Plans To Send Mariner Space Probes To Jupiter, Saturn Near Completion

With Pioneer 10 coasting toward a 1975 rendezvous with Jupiter, earthbound scientists are completing plans to send Mariner space probes to Jupiter and Saturn, and designing the deep space missions that will give the nation its first close look at remote Uranus, Neptune, and Pluto.

These robot Columbuses and Magellans will look for more than planets and their satellites. They will also sense the ionized eddies, radiation belts, shock waves, magnetic fields, and energetic wakes of the planets. Unlike the charts of old, whose borders simply noted "beyond this point are monsters," the navigating memories of these deep space missions are programmed around estimates of the expected space environment. Each expensive ounce of sensor carried into deep space anticipates some measurable planetary characteristic.

Dr. Murray Dryer of Commerce's National Oceanic and Atmospheric Administration, working with Dr. Arthur W. Rizzi of the National Aeronautics and Space Administration's Ames Research Center, and Dr. Wen-We Shen of Texas Instruments, Inc., is developing such an estimate for the interactions between these unvisited planets and the solar wind, the continuous flow of energy that "blows" spaceward from the sun. Dryer is a physicist with the Space Environment Laboratory, one of NOAA's Boulder, Colorado-based Environmental Research Laboratories.

These investigators are concerned with such largely invisible portions of a planet's space environment as magnetic field, ionized regions of the atmosphere, radiation belts, and the like, for these tell much about a planet's vital signs—for example, whether its intrinsic magnetic field originates in the dynamo action of a molten core. A series of preliminary models, reported at the December meeting of the American Geophysical Union in San Francisco described these processes in terms of the planet's interactions with the solar wind in which they are all immersed.

Assuming that interstellar hydrogen and magnetism have a negligible effect on the expanding solar wind, and assuming a certain type of planetary magnetic field (or lack of one) based on each planet's angular momentum, the investigators were able to scale a magnetopause or ionospheric shell for each planet.

"What we are doing," Dryer says, "is taking what we know about Earth, Mars, and Venus, and expanding models that have worked well for these cases to the cases of Jupiter, Saturn, Uranus, Neptune, and Pluto.

Solar wind-flow

"The main difference between the solar wind-flow fields around non-magnetic and magnetic planets," he notes, "is the size of the cavity carved in the solar wind. Some of these are shaped like the Earth's—that is, they have a large, blunted bow shock-wave pointing 'upwind' toward the sun with the magnetosphere trailing off into a comet-like tail. The nose of our magnetopause is at an altitude of about 60,000 kilometers because we have a fairly strong magnetic field. For highly magnetized planets like Jupiter and, possibly Saturn, the magnetopause nose could extend to altitudes of three to four million kilometers. On the other hand, planets with very weak magnetic fields, like Mars and Venus, typically have a rather streamlined ionopause bow wave instead of a big magnetospheric one."

Radio emissions from Jupiter

suggest a strong magnetic field there, and the investigators have modeled a blunted bow-wave type interaction not unlike the Earth's, although much larger. A maximum interaction hypothesis was used to model interactions between the solar wind and magnetic fields of Jupiter Saturn, Uranus, and Neptune. Then a minimum interaction hypothesis was used, with zero magnetic field assumed, to model the interaction between the alternatively assumed ionospheres of Saturn and Pluto and the solar wind. —*NOAA*

Ice Forecasts Are Being Expanded To Lengthen Lake Shipping Season

In a further effort to lengthen the navigation season on the Great Lakes during winter, an ice forecasting service for commercial shipping is being expanded by Commerce's National Weather Service in cooperation with the U.S. Coast Guard.

A new marine teletypewriter network is in operation linking U.S. and Canadian weather stations and commercial marine radio stations. Information on this circuit will include routine ice and weather forecasts, storm watches and warnings, observations from ships and shore stations, notices to mariners, and urgent Coast Guard messages pertaining to navigation on the lakes.

This is all part of the Demonstration Program to Extend the Shipping Season on the Great Lakes and St. Lawrence Seaway under the general management of the Army Corps of Engineers. The Weather Service's parent agency, the National Oceanic and Atmospheric Administration, and other agencies, both public and private, are participating in the program, now in its second year.

Blocked passage

During the winter months lake ice traditionally has blocked passage of ore boats and other large vessels on the lakes for two to three-month periods. Officials believe faster and more detailed weather reports will help commercial skippers keep going longer.

The Weather Service has also this year assigned one of its meteorologists full time to the Coast Guard Ice Navigation Center at Cleveland. His work will supplement that of the main Great Lakes Ice Forecasting Center at the National Weather Service Forecast Office in Detroit.

The Cleveland center will be equipped with regular Weather Service teletypewriters and facsimile equipment so that personnel there will have available the latest weather observations and forecasts for briefings and chart information.

Ice outlook

In Detroit, the main ice-forecasting unit at the weather office is expanding its service to issue ice and weather reports twice a day, instead of once a day. The first transmission will be an ice outlook, issued at 10:30 a.m. The second will be an ice forecast, issued at 4:40 p.m. The ice outlook will give mariners general information extending over the next several days; the ice forecast will provide more specific information for a period ending at 7 p.m. the following day. Both the outlook and the forecast will be available from Coast Guard radio stations around the Great Lakes.

A telephone system has been installed linking the four principal weather forecast offices on the Great Lakes to facilitate coordination of marine warnings. This includes the Toronto office, and the Coast Guard's Ice Navigation Center in Cleveland. Calls on this system will be restricted to Great Lakes weather and ice problems. —*NOAA*

Minicomputer Speeds Retrieval Of Patent Information For Public

Classification information can now be provided within two seconds on any one of the more than 3.7 million patents issued by the U.S. Patent Office with the operation of a new computerized system.

The system utilizes a strip ultrafilm and a viewer connected to a minicomputer. Not only is the system fast but information is provided which has never been offered to the public before. The system is the first automatic retrieval system utilizing ultra-high reduction microfilm or ultrafilm to be installed in a Federal facility.

Classification information is stored on strips of one-inch ultrafilm which contain up to 2,000 computer printout pages. The total classification file on the more than 3.7 million patents is contained on 27 strips which represents more than one billion bits of computer memory that would be needed for a true "on line" computer system.

The minicomputer stores an index to the data on the microfilm so that the proper frame can quickly be found and displayed. It does not contain actual data. The complete microfilm file will be updated quarterly in conjunction with release of reclassification orders. Newly-issued patents will be added to the file monthly.

Those desiring information as to both the original classification and official cross-reference classification may obtain it by telephoning 703/557-3951. A terminal-viewer has been installed for public use in the Search Room, U.S. Patent Office, Crystal Plaza, Arlington, Va. In addition there will also be a copy of the current microfilm in 16mm roll form on hand for use in the manual readers. Paper copies can be made from this microfilm. Microfilm will be available for purchase from the National Technical Information Service in sets or individual reels. —*Patent Office*

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Harvesting machine especially for tree fruits. A harvesting machine especially for tree fruits has a mobile carriage including a main frame adapted to be driven along a side of tree trunk so that a shaker on the frame can engage the trunk. The main frame is adapted to pick up, hold and discharge a fruit bulk bin. A catching frame overlies the main frame and extends under one side of the tree branches. Support arms pivotally mounted on subframes carry flexible catching wings adapted to supplement the catching frame and to extend from retracted position to an extended position underlying the remaining branches of the tree. Fruit falling onto the catching frame and catching wings when the shaker operates is led to a conveyor system carrying the fruit to the bulk bin. Patent No. 3,706,187 issued to Cary M. Toet, Yuba City, Calif.

Four-speed ratio automatic power transmission. A planetary gear transmission mechanism for an automotive vehicle comprising two simple planetary gear units located in a first transmission housing portion, together with clutch and brake means for establishing three forward driving torque delivery paths with uniformly stepped ratios and a single reverse drive torque delivery path, a third simple planetary gear unit situated in a second transmission housing portion on the torque input side of the pair of gear units whereby each forward driving speed ratio established by the pair of gear units, as well as the reverse, drive ratio, may be modified, and clutch and brake means in the second housing portion for controlling the motion of the elements of the third gear unit. Patent No. 3,706,240 issued to Karl J. Borneman and others of Detroit, Mich., and assigned to Ford Motor Company.

Prefabricated buildings. A prefabricated reinforced concrete building wherein pre-cast separate footings are spaced in an arrangement defining the floor plan of the building, and pre-cast wall forming panels, disposed in edge-abutting relation, are supported by the footings. Roof-forming panels overlie the upper edges of the wall-forming panels. The abutting wall-forming and overlying roof-forming panels are interconnected by parallel upwardly extending studs, anchored in adjacent abutting portions of the wall-forming panels, and extending successively through a first apertured tie plate overlying upper edge portions of the wall forming panels; the roof-forming panels; and a second tie plate overlying the roof-forming panels. The studs and tie plates are embedded in the cast *in situ* concrete, so that the roof and wall-forming panels form a monolithic membrane. Patent No. 3,706,168 issued to Andre Pilish, Wyncote, Pa., assigned to the Pennstar Co., Warminister, Pa.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402.

Science Calendar

Jan. 23-25—Philadelphia, Pa.—Bellevue-Stratford Hotel. 1973 Annual Reliability and Maintainability Symposium. Sponsored by American Society for Quality Control, ASME, AIIE, SAE.

March 14-16—Chicago, Ill.—Conrad Hilton Hotel. Industrial Water & Pollution Conference and Exposition. Sponsored by Water and Wastewater Equipment Manufacturers Assn.

March 19-21—Gaithersburg, Md.—National Bureau of Standards. National Roofing Technology Conference.

March 23-25—Hill City, Kan.—Mid-America New Ideas Fair, Graham County Fair Grounds. Information: Hill City Chamber of Commerce, Hill City, Kan.

March 27 — Gaithersburg, Md. — National Bureau of Standards. ANSI Committee on Consumer Education. Contact: T. W. Lashof, 921-2983.

April 4—Gaithersburg, Md. — National Bureau of Standards. Minicomputer Symposium. Contact: Eric Swarthe, 921-3545.

April 4-7 — San Mateo, Calif. — Northern California Industrial Exposition, Hall of Inventions. Information: Northern California Industrial Exposition, Freeman and Associates, 77 Jack London Square, Oakland, Calif.

April 9-10 — Gaithersburg, Md. — National Bureau of Standards. Federal Information Resources Conference.

April 23-26 — Washington, D.C. — Sheraton Park Hotel. American Physical Society. Contact: K. G. Kessler, 921-2001, or W. R. Tilley, 921-2493.

May 6-11—Hartford, Conn. — Annual meeting of the National Conference of States on Building Codes and Standards. Contact: NCSBCS Secretariat, Center for Building Technology, NBS, Washington, D.C., 20234.

May 8-9—Gaithersburg, Md.—National Bureau of Standards. Color & Appearance Symposium. Contact: T. W. Lashof, 921-2983.

June 8-10—Redwood Falls, Minn.—Minnesota Inventors Congress. Information: Minnesota Inventors Congress, P.O. Box 71, Redwood Falls, Minn., 56283.

INTERNATIONAL COMMERCE REPORT

- **Report on Near East water treatment sales prospects**
- **Washington official trade briefs**
- **Current trade trends in Japan**
- **New investment rules, priority projects in Romania**
- **Worldwide list of major 1973 trade fairs**

Eximbank Revises Medium-Term Program

Major revisions and improvements in its medium-term commercial bank exporter guarantee program have been announced by the Eximbank. These changes will permit more complete coverage of principal and interest on export loans and a greater number of alternatives for U.S. commercial banks to choose from in financing medium-term export sales transactions.

The following changes are designed to provide the U.S. exporter with an improved method of obtaining repayment assurance and financing for his export receivables while at the same time increasing coverage to the commercial banks.

► On export credits for private buyers overseas, Eximbank will guarantee all political risks and all but 10 percent of the credit risks on the commercial bank's export loan (excluding the supplier participation).

► On three-year or longer private buyer credits, if the first half of the loan is repaid promptly and the private buyer remains in good condition, Eximbank will provide, upon request, a comprehensive guarantee for the remainder of the commercial bank's 10 percent credit risks, as well as the remainder of the supplier's participation.

► For acceptable government and government-related buyers, Eximbank will offer a guarantee which will, from the outset, cover all political and credit risks on the commercial bank's export loan (excluding the participation by the supplier).

Other changes include:

► Interest payments on all medium-term export credits will be guaranteed up to 1 percent above the U.S. Treasury borrowing rate for comparable maturities, vs. the 6 percent maximum interest rate previously covered.

► In the event of default, Eximbank will cover interest up to the date of claim payment, rather than just to the date of default as before.

► Commercial banks will be permitted to schedule repayment of the smaller export credits in level installments of principal and interest, whereas previously only equal installments of principal with interest on the declining balance were permitted.

► Eligible commercial banks will be given a delegated authority to commit new transactions with the same coverage they would have if they were to submit individual applications to Eximbank for review and approval.

Near East Water Purification Needs Spur Sales Prospects

Nations in the Near East, determined to solve their water purification and waste treatment problems, are looking to U.S. technology for help.

This was the conclusion reached by a recent U.S. water purification and waste treatment trade mission that spent two weeks in Iran, Lebanon, and the United Arab Emirates, with stops in the cities of Tehran, Beirut, Abu Dhabi, and Dubai.

The mission, which was interested in exploring the market for equipment sales and engineering services, brought back an estimate of $4 million for such business over the next 24 months. This figure does not include the possibility of contracts for large capital installations.

The Commerce Department's Albert N. Alexander, who headed the group, had this to say: "Business contacts in the four cities visited were numerous, good communications were established with government officials concerned with water treatment and supply, and prospects for near and long term sales were found to be promising. The consensus was that the areas visited represent significant markets for U.S. water purification equipment and engineering services."

The mission was composed of nine firms offering a range of products and services related to water purification. Seawater and brackish water desalination equipment was featured by Aqua-Chem, AMF Beaird, and Mechanical Equipment Co. (MECO). The reverse osmosis process for purifying water was offered by Ajax International and Polymetrics. Purex Corp. specialized in filtration processes, Dorr-Oliver in waste treatment plants, and KDT Inc. in household applications. The mission was rounded out by a representative from the engineer-architect firm, Burns & Roe.

In Tehran, Beirut, and Abu Dhabi, the mission featured technical seminars under the leadership of J. W. O'Meara, Director of the U.S. Interior Department's Office of Saline Water. For the seminars —attended by government officials, businessmen, scientists, and teachers—each mission member presented a paper related to his area of expertise. O'Meara observed that "the seminars provided an excellent opportunity to report on the current status of desalting technology to a variety of government and private officials responsible for water supply. With this information in hand, they are in a better position to make responsible decisions concerning the purchase of the proper type of equipment to solve specific water problems."

Water scarce in Iran, UAE

The mission found that Iran, basically an arid country, holds out good prospects for U.S. suppliers of equipment that can assist in managing the country's scarce water resources. Economic growth, spurred by large oil revenues, has been impressive over the past decade. A new development plan which envisages the expenditure of $60 billion over five years will begin in March. A principal thrust of the new plan will be for water conservation, development, and distribution for agriculture, industry, and public health.

Like Iran, the UAE is basically an arid area, and discovery and ex-

FIRST CONTACTS—*Beginning a busy schedule in Tehran, U.S. Water Purification Trade Mission Director Albert N. Alexander (standing) and member LaRange S. Davis (on his left) discuss business prospects with Iranian technicians.*

AT CONFERENCE IN BEIRUT—*In Lebanon's capital, mission members met with Government officials concerned with water supply. Minister of Hydraulic and Electrical Resources Joseph Skaff is in left foreground; others, from left clockwise around table, U.S. Interior Department's J. W. O'Meara; mission members Lawrence C. Mayfield, J. Richard Smith, Paul V. Ferguson, Frank J. Zarambo, Melvin J. Mausolf; U.S. Commercial Attache Joe Lill; LaRange Davis, Sebouh Toukhanian (rear); Director General of Hydraulic and Electrical Installations Mohamed Fawaz; and the trade mission's leader, Albert N. Alexander.*

ploitation of oil resources has spurred an economic boom. Formerly called the Trucial States, it now faces the task of developing adequate water supply and treatment facilities for a growing population with rising expectations. Equipment utilized to date has been overwhelmingly British-made because of historical political ties. Nevertheless the UAE's growing affluence and new political independence offer U.S. suppliers opportunities to share in this expanding market.

Lebanon faces shortage

In Lebanon, water problems relate to using existing resources from rivers and wells in a more productive manner. The expanding Beirut population has outpaced existing water supply, distribution, and treatment facilities, causing increased official attention to be focused on these areas including the possibility of seawater desalination. Also, pollution of rivers and ocean beaches appears to need increased attention.

At the close of the mission, Larry Mayfield of MECO commented: "The visit was important to our firm as the desalting equipment market in Iran and the Arabian Gulf has been a lucrative business for us. MECO negotiated with one of our representatives to establish a massive spare parts and equipment depot in the Arabian Gulf for quick delivery and service for many of the MECO units installed offshore."

The usefulness of the mission technique was highlighted by Frank J. Zarambo of AMF Beaird: "My personal appointments were numerous and exceeded any individual trip I could make without the sponsorship of the mission."

The value of trade missions as an opening to future business was pointed out by J. Richard Smith of Burns & Roe who noted that "this type of effort can be of exceptional value to my company with proper follow-up on our part." The comment was seconded by Melvin Mausolf of Dorr-Oliver who added: "I made the contacts I wanted, met the people I had intended to, and have a clear picture of the market."

In addition to those already mentioned, mission members included: LaRange S. Davis, Purex Corp.; Paul V. Ferguson, Ajax International; David L. Grunau, Polymetrics; Richard Rhinesmith, Aqua-Chem; and Sebouh Toukhanian, KDT.

FIRST VENTURE INTO PARAGUAY—*A U.S. catalog show, the first to be sponsored by the Commerce Department for Asuncion, was held recently in the joint conference room of Paraguay's two leading business organizations. Focusing on tourism and leisure time equipment, the show attracted importers, architects, engineers, government officials, representatives of major sports clubs, and hotel managers, who expressed interest in importing some 75 products from U.S. sources. Left to right: Timothy C. Brown, Commercial Officer, U.S. Embassy; Fergus McKeever, World Service International; U.S. Ambassador George W. Landau; Enrique Cazenave, Asuncion Chamber of Commerce and Stock Exchange; Hernan Vargas Pena, Paraguay Industrial Union. (See also,* Commerce Today, *Dec. 11, Page 44.)*

MISSION IN COLOMBIA—*At a conference in Bogota, Aviation Equipment Mission Director John Will (center) meets General Jose Calderon (left), commander of the Colombian Air Force, and U.S. Ambassador Leonard J. Saccio.*

South American Aviation Equipment Market Grows As Facilities Expand

Equipment needs for expansion and modernization of the rapidly proliferating aviation facilities in Colombia, Venezuela, and Brazil are increasing the potential of an already impressive market, according to the Commerce Department's first aviation equipment mission to South America.

Decision-making executives representing nine companies that supply such specialized equipment recently visited Bogota, Caracas, Rio de Janeiro, and Sao Paulo during a two-week period.

Mission Director John Will of the Commerce Department pointed out that, according to current Federal Aviation Administration studies, total expenditures of $500 million to $1 billion will be needed for aviation equipment to implement the International Civil Aviation Organization (ICAO) Regional Plan for South America. Recent inroads to these markets by French and British manufacturers did not dampen the enthusiasm of the mission members. On the contrary, Will said, "the members felt that their reception by our South American neighbors gave proof of their desire to buy equipment from the United States."

The group recorded a substantial number of contacts—more than 300 — during its business stay. Nine agents were appointed and 47 are under negotiation. Sales estimates reaching more than $11 million are projected for the next year.

Fastest growth in Brazil

Although each of the countries visited projected a major market potential, the Brazilian economic growth rate was most impressive. For example, it was pointed out to the mission that Sao Paulo—industrial center of Brazil and the world's fastest growing metropolitan area, with a population now approaching nine million—may become the largest metropolitan area in the world by the mid-1980s. This growth rate, together with the modernization requirements of existing facilities, projects strong aviation equipment sales opportunities.

Requirements diverse

Equipment, engineering, and technical know-how required for modernization and construction of the region's airports covers a wide range of items and services: runways, lighting systems, navigation computers, terminal buildings, air traffic control systems, communications systems, radars, mappers, and technical training in the installation, operation, and maintenance of these facilities. The development covers all classes of airports, from international and commercial down through small private strips.

Sales of equipment in this field involve contacts with both civilian and military officials, since there is an intermesh of civilian and national air force aviation facilities, systems and controls in Colombia, Venezuela and Brazil. In discussions with senior logistical officers of the respective air forces of the three nations, the mission members became aware that the level of U.S. military assistance in Latin America has a major effect on all aviation equipment exports to the area.

Mission members were: H. D. Shamblin, AEROCOM, Miami; Robert E. Staggs, International Division, Beech Aircraft Corp., Wichita; Donald H. Atherly, James E. Durst, and R. J. Sarria, Boeing Electronic Products, Seattle; Robert C. Smith and Alfred C. Herrera, E-Systems, Washington, D.C.; Walter R. Edgington, GTE Sylvania, Washington, D.C.; A. H. Reinfeld and P. Reinfeld, REA International, Rahway, N.J.; R. Goldberger, Commercial Avionics, Kearfott Division, Singer Co., Little Falls, N.J.; William J. Cavoli, Skytronics, Washington, D.C.; Michael B. Crowe, International Defense and Public Systems, Westinghouse Electric Corp., Baltimore. Leo E. Engleson of the Commerce Department served as Deputy Director.

Washington's

Official Trade Briefs

This article is another in a series of monthly reports outlining actions by domestic, foreign, or international agencies affecting world trade, as compiled by the Legislation and Tariff Policy Division of the Bureau of International Commerce's Office of International Trade Policy.

THE PRESIDENT

Adjustment Assistance: On Jan. 8 President Nixon directed the Secretary of Commerce to certify the Wilson Shoe Co., Shamokin, Pa., as eligible to apply for adjustment assistance under the Trade Expansion Act of 1962. The President's action broke a tie vote of the Tariff Commission on the corporation's petition for adjustment assistance, which is granted to firms caused serious injury from imports which have increased as a result of concessions granted under trade agreements.

Presidential Proclamation — Imports of Nonfat Dry Milk: To meet a temporary shortage, President Nixon on Dec. 30 signed Proclamation No. 4177 authorizing a 25-million-pound increase in the import quota quantity of nonfat dry milk for a period ending Feb. 15. In addition, the President requested that the U.S. Tariff Commission make an investigation under Section 22 of the Agricultural Adjustment Act, as amended, to determine whether the above quantity of nonfat dry milk may be imported into the United States without adversely affecting the U.S. milk price support program or without substantially reducing the amount of products processed from domestic milk.

Suspension of Import Restrictions on Meat: On Dec. 21 Treasury Secretary George P. Shultz announced the continued suspension of quotas on meat imports for 1973. President Nixon initially removed these restrictions in June. The step was taken to stabilize cattle prices and to reduce periodic surges in wholesale beef prices.

Additional Oil Imports: Imports of heating oil from the Virgin Islands will be increased during January—April 1973 to help alleviate local heating oil shortages. The Office of Emergency Preparedness announced Jan. 8 that import licenses for No. 2 oil from the Virgin Islands will be issued to persons selling this heating fuel in Districts I-IV, which includes all areas east of the Rocky Mountains. The above action may make available up to 250 million gallons of additional No. 2 fuel oil during the current winter season.

CONGRESS

The first session of the 93rd Congress convened Jan. 3. In the first week, approximately 42 trade and related bills were introduced. Among these were: S.151 and H.R. 62, the Hartke-Burke bill, to amend the tariff and trade laws of the United States to promote full employment and restore a diversified production base, to amend the Internal Revenue Code of 1954 to stem the outflow of U.S. capital, jobs, technology, and production, and for other purposes; S.117, to amend the U.S. Tariff Schedules to accord to the Trust Territory of the Pacific Islands the same tariff treatment as is provided for insular possessions of the United States; S.144, to prohibit withdrawal of merchandise from a customs bonded warehouse for exportation pursuant to retail sales unless such warehouse is in close proximity to a port, airport, or border crossing station; S.146, to include papayas in the list of imported commodities to which certain restrictions apply if the Secretary of Agriculture issues marketing orders with respect to like commodities domestically produced.

Also, H.R. 117, to amend the Hazardous Materials Transportation Control Act of 1970 to require the Secretary of Transportation to issue regulations providing for the placarding of certain vehicles transporting hazardous materials in interstate and foreign commerce; H.R. 151, to prohibit Most-Favored-Nation treatment and commercial and guarantee agreements with respect to any nonmarket economy country which denies to its citizens the right to emigrate or which imposes more than nominal fees upon its citizens as a condition to emigration.

Also, H.R. 205, to prohibit importation, manufacture, sale, purchase, transfer, receipt, or transportation of handguns, in any manner affecting interstate or foreign commerce, except for or by members of the Armed Forces, law enforcement officials, and as authorized by the Secretary of the Treasury, licensed importers, manufacturers, dealers, and pistol clubs; H.R. 328, to amend the tariff and trade laws of the United States and for other purposes; H.R.362, to amend certain provisions of Federal law relating to the preference to be given to American goods in connection with purchase of materials required for public use.

Also, H.R. 421, to amend the U.S. Tariff Schedules to permit importation of upholstery regulators, upholsterer's regulating needles, and upholsterer's pins free of duty; H.R. 428, to terminate the oil import control program; H.R. 498, to amend the tariff and trade laws of the U.S. to encourage growth of international trade on a fair and equitable basis; H.R. 563, to amend the Tariff Act of 1930 to eliminate, in the case of shrimp vessels, the duty on repairs made to, and repair parts and equipment purchased for, such vessels in foreign countries; H.R. 569, to amend the U.S. Tariff Schedules to make spe-

cific provisions for ball or roller bearing pillow block, flange, take-up cartridge, and hanger units; H.R. 599, to repeal the meat quota provisions of Public Law 88-482.

Also, H.R. 570, to provide for orderly trade in antifriction ball and roller bearings and parts thereof; H.R. 600, to provide that office, industrial, or household appliances and equipment be conspicuously marked to show the foreign country of origin; H.R. 601, to amend the U.S. Tariff Schedules to repeal the special tariff treatment accorded to articles assembled abroad with components produced in the U.S.; H.R. 609, to require that before import quotas on meats may be suspended or increased under subsection (d) (1) and (2) of the act, the Secretary of Agriculture must estimate that the average price expected to be received by products for beef cattle will equal or exceed parity during the period of the suspension or increased quotas; H.R. 1030, to amend Title III of the Act of March 3, 1933, commonly referred to as the "Buy American Act," with respect to determining when the cost of certain articles, materials, or supplies is unreasonable, to determine when articles, materials, and supplies have been mined, produced, or manufactured in the U.S., to make clear the right of any State to give preference to domestically produced goods in purchasing for public use.

Also H.R. 1068, to protect collectors of antique glassware against manufacture in the U.S. or the importation of imitations of such glassware; H.R. 1141, to amend section 592 of the Tariff Act of 1930; H.R. 1162, to amend the Federal Meat Inspection Act to provide for more effective inspection of imported meat and meat products to prevent importation of diseased, contaminated, or otherwise unwholesome meat and meat products; H.R. 1163, to amend the Federal Meat Inspection Act to require that imported meat and meat food products made in whole or in part of imported meat be labeled "imported" at all stages of distribution until delivery to the ultimate consumer.

Also, H.R. 1244, to suspend for a 3-year period the duty on fair stained and better india ruby mica films, first or second quality; H.R. 1257, to suspend for a temporary period the import duty on tungsten ore and other materials in chief value of tungsten; H.R. 1383, to provide for orderly trade in iron ore, iron, and steel mill products; H.R. 1435, to impose import limitations on prepared or preserved strawberries; H.R. 1436, to require imported foodstuffs to meet standards required by the Federal Government for domestic foodstuffs; H.Con.Res. 7, expressing the sense of the Congress with respect to sanctions against Rhodesia.

TARIFF COMMISSION

Escape Clause Investigation—Men's and Boys' Neckties: The Tariff Commisison has rescheduled for Feb. 6 a public hearing originally scheduled for Jan. 23 in connection with its escape clause investigation of imported men's and boys' neckties of textile materials. The hearing will begin at 10 a.m. in the Hearing Room of the Tariff Commission Bldg., Eighth and E St. NW., Washington, D.C.

Adjustment Assistance—Firms: The Tariff Commission recently opened an investigation to determine if the Dainty Maid Footwear, Inc., Gettysburg, Pa., is sustaining injury from increased imports of **footwear for women** (of the types provided for in TSUS items 700.43, 700.45, and 700.55). After examining the effect of imports, the Commission will determine whether the firm is eligible for adjustment assistance.

In other actions, the Commissioners were evenly divided (3-3) in their investigations of alleged import injury to two firms and their workers: Arkwright Mills of Spartanburg, S. C., manufacturer of **woven fabrics of cotton and manmade fibers,** and the Bernie Shoe Co., of Haverhill, Mass., a manufacturer of **footwear for women.** In the case of an evenly divided decision, the President may consider the finding of either group as the finding of the Commission.

Adjustment Assistance—Workers: Since the last Trade Briefs column (*Commerce Today,* Dec. 11), the Commission has opened investigations into the effect of imports on eight petitioning groups of workers at the following plants: Dorman Mills, Parsons, W. Va. (**woven fabric of wool, and fabrics, including laminated fabrics, of wool, and of manmade fibers**); Jerrold Electronics Corp., Philadelphia, Pa. (**matching transformers, coils, taps, splitters, directional couplers, amplifiers, preamplifiers, and attenuators**); the Los Angeles Assembly Plant of Chrysler Corp., (**new passenger automobiles**); General Instrument Corp., Tazewell, Va. (**aluminum electrotytic capacitors**); American Viscose Division of FMC Corp., San Jose, Calif. (**viscose rayon yarns wholly of continuous fibers**); and three firms manufacturing **footwear for women,** Rose-Bro Shoe Co., Inc., Boston; Dainty Maid Footwear, Inc., Gettysburg, Pa.; and Andal Shoes, Inc., Haverhill, Mass.

In its reports of five investigations on behalf of worker groups, the Commission found in only one instance that the criteria establishing eligibility for adjustment assistance were met. As a result of a positive determination, workers of Wise Shoe Co., Exeter, N. H. (**footwear for women**), are now eligible to apply to the Secretary of Labor for adjustment assistance. The Commission found that the criteria establishing eligibility for adjustment assistance were not met in the case of the former workers of the Gonic plant of Rindge Industries, Inc., Rochester, N. H. (**woven fabrics of wool, manmade fibers, and blends**).

In the remaining three cases, the Commission's vote was evenly

divided (3-3). Involved in these actions were the workers of Arkwright Mills, Spartanburg, S. C. (**woven fabrics of cotton and man-made fibers**), the Bernie Shoe Co., Haverhill, Mass (**footwear for women**), and the former workers of Airco Speer Electronic Components, Du Bois, Pa. (**radio frequency coils, molded ceramic capacitors, and fixed precision metal film resistors**).

Application Procedures for Workers: The Tariff Commission on Dec. 6 announced revision of its rules to simplify and expedite procedures which must be followed by groups of unemployed or underemployed workers making application for adjustment assistance under the Trade Expansion Act of 1962.

Dumping Cases: The Tariff Commission has concluded six investigations of articles previously determined by the Treasury Department to be sold at less-than-fair value (LTFV). In one case, the Commission determined that an industry in the United States is being injured by reason of LTFV imports from Canada of **northern bleached hardwood kraft pulp**. As a result, these imports will now be subject to special dumping duties. In five other cases, the Commission notified the Secretary of the Treasury that U.S. industries are not sustaining injury by reason of the following LTFV imports:

Metal parts for residential lamps (Canada); **color television picture tubes** (Japan); **kanekalon wigs** (Hong Kong); **perchlorethylene** (Italy, Japan, and France); and **30-pound MF (machine finish) kraft wrapping paper** (Canada). In additional activity, the Commission opened investigations to determine injury in connection with **collapsible baby strollers** and **roller chain** from Japan, and **canned Bartlett pears** from Australia.

Section 337 (Unfair Import Competition) Cases: In connection with two current Section 337 investigations, the Tariff Commission recently issued notices of public hearings regarding alleged unfair imports of **electronic pianos** (Jan. 30) and of **certain writing instruments and nibs therefor** (March 6). Both hearings will be held at 10 a.m., in tthe Hearing Room of the Tariff Commission, Eighth and E Sts., N.W., Washington, D. C.

On Dec. 8, the Commission dismissed on the basis of submissions by interested parties the preliminary inquiry instituted pursuant to a complaint filed by the Avid Corp. of East Providence, R. I. The complaint alleged patent infringement in the importation and sale of **passenger entertainment headsets and replacement tips** (stethoscopes).

OTHER AGENCIES

Treasury — Countervailing Duty Case: On Jan. 5 the Treasury Department issued a countervailing duty order upon imports of **X-radial steel belted tires** produced by Michelin Tire Ltd., of Canada. The new duties, estimated at 6.6 percent of the f.o.b. factory price for 1973, will become effective as of Feb. 10. Section 303 of the Tariff Act of 1930 requires the Secretary of the Treasury to levy a countervailing duty equal in amount to any grant or bounty which a country bestows on its exports to the United States. In this case, to encourage construction of two Nova Scotia plants, which started operation in December 1971, the Canadian and provincial governments made grants of $23 million, the province of Nova Scotia extended a low interest loan of $50 million, and local property tax assessments were reduced. Treasury ruled that the government subsidies constituted "bounties or grants". This was the first time that the United States has invoked the Countervailing Duty statute when a regional development grant was involved.

Treasury—Dumping Cases. Since the last Trade Briefs column (*Commerce Today*, Dec. 11), Treasury has announced affirmative findings of less-than-fair value (LTFV) sales in investigations of the following four articles: **roller chain, other than bicycle** (Japan); **canned Bartlett pears** (Australia); **collapsible baby strollers** (Japan); and **manual hoists** (Luxembourg). These cases have been referred to the Tariff Commission to determine if U.S. industries are sustaining injury from the LFTV sales. In another case, a tentative determination was issued that **permanent magnets of alnico or ceramic material** from Japan are not being, nor are likely to be, sold at less than fair value. In other dumping activity, Treasury has opened investigations to determine if sales at LTFV are occurring with respect to two products from Japan, **polymerized chlorobutadiene (polychloroprene rubber)** and **calcium pantothenate.**

Treasury—Amendment of Antidumping Regulations: On Dec. 7, Assistant Treasury Secretary Eugene T. Rossides announced final adoption of amendments, first proposed last April, to the antidumping regulations. The new rules are intended to insure that the Antidumping Act is more effective in defending U.S. industry against unfair international trade practices in the dumping area, while at the same time providing complete fairness in antidumping investigations. In addition to those amendments previously reported (see *Commerce Today*, May 15), Treasury has made other changes, including an amendment which sets forth procedures whereby discontinued investigations can be terminated and an amendment which specifically provides that when an investigation is discontinued on the basis of price assurances, the foreign manufacturers, producers, or exporters will permit verification of the information submitted in periodic reports.

Commerce—Adjustment Assistance: The Secretary of Commerce has announced certification of trade adjustment proposals submitted by the Estey Piano Corp., Union, N.J., and by Duchess Footwear Corp., Salem, Mass. Both

firms will receive financial and technical assistance in adjusting to competition from increased imports caused by U.S. trade concessions. Estey Piano Corp. will receive a direct loan not to exceed $944,000, technical assistance, and a guarantee for an accounts receivable financing facility not to exceed $2 million. Duchess Footwear Corp. will receive a Government loan of up to $3,051,000, technical assistance, and is eligible to apply to the Internal Revenue Service for tax assistance.

Labor—Adjustment Assistance: On Dec. 12, the Bureau of International Labor Affairs announced that approximately 280 former workers of Welpro, Inc., Seabrook, N. H., who lost their jobs as a result of increased imports of **women's shoes**, have been certified as eligible to apply for trade adjustment assistance. The Department of Labor certification follows a Tariff Commission report to the President that the workers involved became unemployed or underemployed because of increased imports, resulting in major part from trade agreement concessions. Workers' assistance under the Trade Expansion Act may include cash readjustment allowances, testing, counseling, training, and job placement and relocation if needed and desired.

Agriculture—Poultry Meat Imports Banned, Egg Imports Restricted: The Department of Agriculture announced on Jan. 8 a ban on importation of all fresh poultry meat into the U.S. and the application of import restrictions on table eggs. These actions were taken to protect the nation's supply of poultry and eggs against further introduction of exotic Newcastle disease. The prohibition on poultry imports covers all fresh, chilled, and frozen poultry carcasses and parts. The new restrictions for imported eggs set tighter sanitary standards and require certification by a veterinary official of the exporting country that the eggs are free of Newcastle disease. Poultry and egg imports from Canada are exempt from these measures.

International Trade Briefs

EEC—Compensatory Duties on U.S. Exports—On Jan. 1, the European Community ended certain higher compensatory tariffs and thus reduced the duties applied to U.S. exports of **polyethylene** (from 32 to 16 percent), **woven fabrics of synthetic textile fibers** (from 35 to 13 percent), and **woven fabrics of regenerated textile fibers** (from 30 to 15 percent). Compensatory duty rates for these products were established by the EEC according to rules of the General Agreement on Tariffs and Trade in response to 1962 escape clause actions taken by the United States to increase tariff protection for certain carpets and sheet glass. The increased duties on carpets, primarily from Belgium, were allowed to terminate Dec. 31, 1972. Escape clause duty increases, which originally applied to all weights of sheet glass, were modified in January 1967 to remove duty increases on lightweight and heavy sheet glass and to reduce increases applicable to medium weight sheet glass (window glass). The remaining escape clause duties on window glass are being terminated in three stages. The first stage became effective May 1, 1972; the remaining cuts are to go into effect Jan. 31, 1973, and Jan. 31, 1974.

GATT—Notification on Tariff Concessions: The United States has notified the Contracting Parties to the GATT that it has reserved the right to modify its tariff rates during the three-year period commencing Jan. 1, 1973, on all items in its GATT schedule.

Each member of the GATT is usually precluded from increasing its tariff rates on the various commodities included in its GATT schedule except during a brief "open season" held every three years. A country, however, may notify the GATT that it wishes to reserve the right to modify its entire schedule for a full three-year period. This action, in turn, entitles any other GATT member to modify any tariff rate concession which it has negotiated with the notifying member.

The U.S. action followed similar notification by the European Communities, Austria, Australia, Denmark, Finland, India, Israel, New Zealand, and South Africa. This action does not reflect a decision to alter any U.S. tariff rates, but merely provides the same maximum flexibility available to the other notifying countries. In previous years countries have reserved the right of renegotiation and have either not used it or have used it for only a few items. If any of the notifying countries should wish to modify any tariff concessions, they must first inform the other members of the GATT and then negotiate compensatory tariff concessions on alternative items prior to implementing the desired tariff modifications.

ICO—Coffee Quotas: In December the International Coffee Organization failed to establish coffee export quotas, resulting in the first total absence of coffee export quotas in the nine-year history of the International Coffee Agreement. The quota-free period began Dec. 11, 1972, when the producer and consumer nations failed to reach an agreement on the quotas for the remaining period of the current coffee year (1972-73), and will continue through Sept. 30, 1973, barring the unlikely event that the Council will re-establish quotas. The ICO Council did pass resolutions calling for continuation of the certificate of origin and stamp system. However, suspension of quotas essentially means that the bulk of the world's coffee trade returns to free market conditions prevailing before Sept. 30, 1963, when the coffee pact took effect.

International Business Reports

Canadian Non-Tariff Barriers to Trade. By Klaus Stegemann. Published by the Canadian Economic Policy Committee of the Private Planning Association of Canada. 162pp. $4.

In this volume, Professor Stegemann provides a general introduction to the subject of non-tariff barriers in Canada, examines in detail three of these barriers—quantitative restrictions, public procurement policies, and subsidies for import-competing industries — and assesses the role of NTBs in Canadian commercial and economic policy. He concludes that "in many respects Canada's NTB protectionism has not been as bad as the policies pursued by other developed countries, but over the past few years it has tended to get worse in most areas analyzed, and strong pressures are pushing the government further in this direction.

Write: Private Planning Assn. of Canada, 2060 Sun Life Bldg., Montreal 110, Quebec, Canada.

Successful Marketing Strategies. By Jon G. Udell. 158pp. $9.50.

The aim of the author is to increase knowledge about the composition of effective marketing programs and provide a basis for improving the efficiency and effectiveness of marketing decisions.

Because strategies vary significantly among products and markets, the strategies of each major industry are presented. Each is subdivided into 20 major components,

Write: Mimir Publishers, Inc., Box 5011, Madison, Wis. 53705.

The Indian Ocean: Its Political, Economic and Military Importance. Edited by Alvin J. Cottrell and R. M. Burrell. 457pp. $25.

Assesses the political, economic and military future of the Indian Ocean, considering all of its principal states, including those in the Persian Gulf-Red Sea area as well as the islands in the Ocean itself. Discusses implications of the recent British withdrawal after more than 150 years in the region.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

East and West Germany: A Comparative Economic Analysis. By Martin Schnitzer. 446pp. $22.50.

Compares an essentially market-directed economy with a socialist economy in terms of their in terms of their institutional structure and economic development. Analyzes the general characteristics of the economic and political systems as well as the organization of industry and agriculture, fiscal systems, income distribution, money and banking, and labor unions in the two Germanys.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003.

The Arab Market: Opportunities for U.S. Business. Published by the American-Arab Assn. for Commerce & Industry. 16pp. 75¢.

The purpose of this study, according to the Association's President, is to demonstrate the significant growth of the Arab market, the opportunities created by this growth for greater sales of American products, and the need to adopt appropriate national policies which will serve to strengthen the economic ties linking the United States and the Arab world. Subjects reviewed include supply and demand for energy fuels, annual budget allocations of some of the Arab nations, and possible reasons for the relatively poor performance of U.S. exporters to the Middle East and North Africa.

Write: American-Arab Association for Commerce & Industry, 505 Fifth Ave., New York, N.Y. 10017.

Calendar For World Traders

Jan. 23 — Boston — In-office workshop on export licensing and controls, Commerce Field Office, 9:30 a.m.

Jan. 25—Cleveland—Greater Cleveland Growth Assn. annual meeting, Sheraton Hotel. Sponsor: Cleveland World Trade Assn.

Jan. 25—Jonesboro, Ark.—Northeast Arkansas Export Opportunities Conference, Reng Center, Arkansas State U. Sponsors: REEC, Jonesboro Chamber of Commerce, Memphis Field Office.

Jan. 25—Cleveland — First of six weekly international trade workshops, Union Commerce Bldg., 9-11 a.m. Sponsor: Cleveland World Trade Assn.

Jan. 29-30—Paris, France — FCIB Europe International Roundtable Conf., Paris Hilton. First day: Roundtable Conference. Second day: Industry Credit Groups. Sponsor: Foreign Credit Interchange Bureau, New York.

Jan. 30—Little Rock—Export Financing Workshop, Sheraton Motel. Sponsor: Arkansas Exporters Roundtable.

Feb. 1-2—New York — American Management Assn. briefing on DISC, AMA headquarters.

Feb. 6—Atlanta — National Maritime Council Forum (3 p.m.) & Unity Dinner (6:30 p.m.), Marriott Motor Hotel.

Feb. 6—Chicago—Automotive Exporters Club, Builders Bldg.

Feb. 6—New York—FCIB Luncheon & Roundtable Conference, Summit Hotel, noon.

Feb. 6-7—New York — 13th Containerization Conference, Americana Hotel. Sponsor: Containerization Institute.

Feb. 8 — Chicago — International Trade Club meeting, Sheraton-Chicago.

Feb. 14—Seattle—Export seminar, Public Library Auditorium, 9:30-noon. Sponsors: Commerce Field Office and Small Business Admin.

Worldwide Business Outlook

Japan's Economic Upturn Can Benefit U.S. Sales

Japan is accelerating its way out of the recent economic slowdown. Rapid growth is expected in 1973 by the U.S. Embassy in Tokyo, leading to continued substantial increases in U.S. exports to Japan.

All major sectors are participating in recovery from the economic slump which ended in late 1971. Industrial output and shipments are advancing at a satisfactory pace and some inventory accumulation is now adding further strength to new order receipts. Higher levels of consumer spending will also provide continuing support to the recovery process. A surge in housing and government construction, one of the main elements propelling the economy forward during the early phases of cyclical recovery, is expected to remain strong.

Investment in new manufacturing facilities, which provided the main thrust in previous recovery periods, is reviving only slowly. In the period ahead, however, it is expected to strengthen, at a time when other elements will no longer be providing momentum to the economy.

The cumulative effect of the steady business recovery is having a tightening impact on labor markets and is causing upward pressures on some wholesale prices.

In 1972 real GNP increased by an estimated 9 percent compared with only 6.1 percent during the 1971 recession year. The pace of advance has accelerated steadily since the turning point a little more than one year ago.

Elements for growth

The broadly based and well balanced character of the present recovery, assured high levels of government spending, and anticipated later revival in manufacturing investment provide the elements for rapid economic growth in Japan in 1973. Early in the year, the advance in real GNP should exceed the average real growth rate during the period 1965-70 of 12 percent.

There is every reason to expect that such a rate can be maintained throughout the year without creating undue domestic pressures. Nor is it likely that the economy would be much affected in the event of a decline in its very large trade surplus.

U.S. exports have benefited from Japan's cyclical recovery. Japanese imports from the United States increased 18.8 percent in January-October 1972, according to preliminary customs figures, while Japanese exports to the United States rose by 14.7 percent.

The largest increases in U.S. exports to Japan were concentrated in the agricultural sector, with imports of U.S. agricultural products up 22 percent or $165.5 million in 1972 over the same January-September period of 1971. Almost all major commodities showed gains in the period through September, including grains, meats, fruits and vegetable oil and oilseeds, while only imports of U.S. cotton and tallow showed declines. Prospects continue to remain good for further increases in sales through 1973, especially for grains and soybeans.

Imports of industrial supplies and materials were mixed during the same period. Sales of U.S. lumber, chemicals, and non-ferrous metals rose somewhat, but coal, scrap, and other industrial supplies decreased. Demand is not expected to increase in the short and perhaps even the medium-term periods as user industries continue their slow pace of recovery.

Imports of U.S. machinery and equipment for the first ten months of 1972 registered only slight gains overall compared to the same period in 1971. Imports are expected to remain somewhat sluggish over the near to medium term due to the shifting of emphasis in the Japanese economy from manufacturing to non-manufacturing. Some equipment and spare parts, however, may now have become competitive in the local market as a result of the recent across-the-board tariff reductions.

SELLING TO THE JAPANESE—*Bill Fredrick (left), chief engineer for Photo Sources, demonstrates a laser unit to visitors at a recent Tokyo Trade Center show.*

Two important factors influencing further expansion of U.S. exports to Japan are expanding domestic demand and the continuing effects of yen revaluation. Japan's import composition is already changing as a consequence of shifts in domestic spending and investing patterns. Therefore, raw material imports will probably remain sluggish, reflecting slower recovery in the heavy industries, while industrial machinery and equipment will be only slightly better.

The brightest prospects for sales to the Japanese market will likely be in consumer goods, equipment for housing and in service industries. Anti-pollution equipment should be in high demand to fill the needs of the government's efforts to clean the environment.

Another area that should be of increasing interest is in products associated with leisure time. Over one third of Japan's labor is already on a five-day week, and this trend will continue. This, coupled with rapidly rising wages, should expand the market for all types of U.S. consumer goods.

U.S. goods should also benefit from new Japanese actions toward encouragement of imports. Tariff reductions and other liberalization measures undertaken last year offer U.S. suppliers better opportunities to sell in the Japanese market. Moreover, Japanese importers are currently very active in seeking out new sources of foreign goods not previously available in the local market.

Many specific products with great sales potential in Japan were identified in a recent survey conducted for the Department of Commerce by the Embassy. It included products in the following categories: data communications equipment (including mini-computers), computer peripherals and software; anti-pollution equipment; analytical and testing instruments; sporting and leisure-time goods; materials for housing and building construction; sewage cleaning plants, incinerators, garbage collection and disposal systems; household electrical appliances; and numerical control machine tools and accessories.

As a result of Japan's strong balance of payments position, liberalization is now taking place with respect to long-term capital investments. The Japanese Government indicates that it will allow more yen-denominated public bond issues; however, funds raised from yen foreign bonds must be immediately converted and remitted. Secondary issues of U.S. equities are to be allowed in the Tokyo market, though at present requirements for registration and sales are somewhat time-consuming and detailed.

Substantial increase

There has also been a substantial increase since July in private placements of dollar-denominated loans to multinational corporations. Rates on such placements thus far have been somewhat more attractive than those offered in Europe.

In November the government also liberalized the sale of foreign investment trusts (mutual funds) in Japan. Mutual funds sold in the Japanese market will be required, with certain exceptions, to conform with the criteria set out in the OECD Standard Rules for Investment Trusts. Sales and marketing criteria will be developed by the Japanese Federation of Securities Associations.

There have also been recent indications that the Japanese Government will allow foreign companies to list their shares on the Tokyo Stock Exchange for the first time this year.

Regarding liberalization of direct investment, serious discussion is now under way to make 100 percent foreign equity ownership the rule rather than the exception and to ease restrictions on foreigners' purchases of outstanding shares by raising the purchase limit from 25 to 50 percent.

In the period May to November U.S.-Japanese trade relations were the subject of almost continuous discussion, highlighted by the July trade meeting in Hakone and the September meeting in Hawaii between President Nixon and Prime Minister Tanaka. Most important among the decisions resulting from these discussions, which should

Japanese Trading Firms Seek U.S. Consumer Goods

Three major Japanese trading companies have expressed interest in the distribution in Japan of a wide range of U.S. consumer goods.

Matsushita Electric Trading Co., Ltd., a subsidiary of Japan's largest manufacturer of household appliances, is seeking quality American consumer goods to import in large quantities for retail sale in Matsushita's 40,000 outlets throughout Japan.

The Mitsubishi Corp., Japan's largest trading company, has established an American Goods Importing Promotion Task Force which is seeking U.S. suppliers for a wide variety of consumer products.

Toyota Motor Sales Co., Ltd., sales arm of Japan's largest automobile producer, is interested in representing a U.S. mail order house for sale of U.S. goods through its network of 250 dealers in Japan.

Details on these distribution plans were carried on pages 65 and 70 of the Dec. 11 issue and page 61 of the Oct. 30 Commerce Today.

These opportunities reflect the Japanese Government's current policy of encouraging more imports from the United States. As noted in the accompanying article, expanding domestic demand and the continuing effects of yen revaluation are improving the market in Japan for U.S. consumer goods.

have the effect of increasing Japanese imports, were the following:

► Permitting a slight increase in deliveries in Japan of electronic computers produced by foreign or foreign-owned firms, provided such deliveries do not exceed 50 percent of the Japanese market;

► Permitting establishment of wholly-owned U.S. retail outlets in Japan, up to 11 stores per applicant, to sell U.S. products and products that may be considered as U.S. products (e.g. manufactured outside the U.S. to U.S. specifications and having the U.S. trade name, and Japanese products required to sell the U.S. products);

► Looking with favor on the establishment in Japan of 100 percent U.S.-owned firms to engage in packaging and minor processing, provided such firms do not appear to disturb Japanese industry in a drastic and abrupt fashion;

► Rescinding a Cabinet decree of 1963 which limited purchases by Japanese Government agents to Japanese products if available;

► Intention to accelerate imports of certain specific goods and services;

► Increasing to $1,000 the amount that individuals could purchase abroad, e.g. by mail order, and to $2,000 for samples and advertising with only Foreign Exchange Bank approval.

On Nov. 13, the Diet passed a bill to partially implement the five-point economic program of Oct. 20 which, among other things, provides for: a uniform 20 percent tariff reduction (with certain excepted categories); duty reduction on imports of finished goods containing previously exported Japanese components will be extended to a longer list of items; revision of the Japan Export-Import Bank law to expand import financing; and authority to untie some Japanese foreign aid. Also as part of the Oct. 20 program, MITI has announced its intention to limit excessive export growth of selected commodities under the Export Control Ordinance.

Romania Clarifies Investment Rules, Issues New List Of Priority Projects

To encourage foreign private investment and to attract U.S. joint venture partners, the Romanian government has recently taken two important actions.

New regulations implementing the 1971 Foreign Investment Law were recently issued, thereby giving foreign firms a clearer idea of how joint ventures will operate. Secondly, Romanian officials in the United States have provided the Department of Commerce with a new shopping list of priority projects for which they would like to establish joint ventures with U.S. companies.

According to the March 17, 1971 Foreign Investment Law, joint companies with foreign equity participation may be formed in the fields of industrial and agricultural production, construction, transport, tourism as well as in technical-scientific research and services. The first of two decrees dated Nov. 2, 1972 provides more information on the establishment, organization, and functioning of a joint company. The second describes the taxation of joint ventures.

Summary of Decrees

Key provisions of Decree No. 424 include a requirement that the share of the Romanian side in the joint company must be at least 51 percent. The Romanian State guarantees to foreign partners the transfer abroad of the participating investment quota and profits after payment of legal taxes and contractual obligations.

Joint ventures will be set up as joint stock companies or limited liability companies. The participating share of the parties to the investment capital may be a financial one or a share in goods. The Romanian share may also include the equivalent value for the right to use land which the Romanian State puts at the disposal of the joint company. The financial quotas of the parties will be deposited in the Romanian Bank for Foreign Trade.

Before setting up a joint company, the Romanian partner must get approval from the State Planning Committee, Ministry of Finance, Ministry of Foreign Trade, Ministry of Labor, Romanian Bank for Foreign Trade, and the State Council (by a decree) with the agreement of the Council of Ministers. Joint companies will work on the basis of 5-year plans and annual economic programs. The joint company's financial activity will be inspected by a joint committee of which one or two persons will belong to the Romanian Ministry of Finance.

All the expenses of the joint company are to be paid in the currency agreed upon in the contract. For smaller expenses the payment may be made through a lei account, opened with the Romanian Bank for Foreign Trade. Sales of the joint venture's products should be made upon payment in the currency agreed upon for the domestic market, and directly or through foreign trade companies for the foreign market. All payments in foreign currency should be made only from the company's own currency or from loans.

A part of the profit will be used for a reserve fund. The balance after the deduction of the reserve funds and payment of legal taxes will be distributed among parties in accordance with their contribution to the capital investment.

The joint company must transfer to the bank with which it works, all the currency for Romanian personnel salaries and will receive from the bank the respective amounts in lei. Romanian personnel have all the rights and obligations provided by Romanian laws. Foreign personnel can transfer

their salaries abroad through the Romanian Bank for Foreign Trade. The quota to be transferred will be determined by the company's management.

Decree No. 425 specifies that profits of joint Romanian-foreign companies will be taxed 30 percent annually. The tax is calculated on the annual profit, prior to its distribution among the parties. A tax exemption may be granted by the Council of Ministers on profits made in the first year of profitable operation. For the following two calendar years the tax payment can be reduced by half. The tax for that part of the profit which may be reinvested within 5 years in the same company or other joint companies with Romanian participation may be reduced by 20 percent.

Companies must pay provisional taxes in quarterly installments based on their profit forecast. Joint companies must also register with the Ministry of Foreign Trade and Ministry of Finance, and pay a registration fee of 5,000 lei (US-$900).

Shopping List

To assist potential U.S. investors, the Romanian Economic Counselor recently announced a list of "Priority Projects for Joint Venture Activities." Heading the list is a proposed industrial complex for the manufacture by polymerization of synthetic butyl rubber. Romania is looking for a U.S. partner to provide know-how, equipment, measuring and control apparatus and to participate in the training of personnel.

The list includes an industrial complex for synthetic fiber, a petrochemical complex (oil distillery and processing), equipment and know-how for manufacturing insecticides, and the manufacturing of hand power tools. Also included are a complex for manufacturing photosensitive film materials and equipment and know-how for manufacturing radio communication equipment for air and sea navigation; these items would require a U.S. validated export license, however. This list constitutes an updated addition to the joint venture list published in the Aug. 9, 1971 issue of *Commerce Today*.

MACHINE TOOL FACTORY IN BUCHAREST—*The Romanian Government has acted to spur U.S.-Romanian joint ventures in a number of manufacturing areas.*

Chemical products are another area in which the Romanians are seeking long-term arrangements with U.S. companies which might combine investment, licensing and purchase agreements. Particular products available include various types of chemical fertilizers, solvents, heavy chemicals, plastics, synthetic fibers and yarns, mineral oils, and organic intermediates.

Inquiries should be directed to the Office of the Romanian Economic Counselor, 95 Madison Ave., New York, N.Y. 10016 (telephone 212-532-4077). Firms in the Midwest may contact the Romanian Foreign Trade Promotion Office, 100 West Monroe St., Suite 2010, Chicago, Ill. 60603 (telephone 312-782-4463). Romania will soon open another trade office in San Francisco.

Hondurans, Despite Economic Slump, Are Ready To Buy More U.S. Goods

Real economic growth in Honduras dropped to about 3.6 percent in 1972, but this small market still offers good trade potential for U.S. suppliers.

The U.S. Embassy in Tegucigalpa pinpoints a slowdown in public and private investment as the principal cause of the slump. In the public sector, many of the large infrastructure projects begun in the last few years have been completed and there is now a lull as the problems of new project implementation must be worked out. The private sector is showing a cautious attitude toward new investment as there is uncertainty about Honduras' role in Central American trade as well as the functioning of the country's coalition government.

The fiscal situation of the government is not good and it is hoped new tax increases may be approved to alleviate the situation. Honduras' credit standing with international lending agencies is good and the country has abided by the requirements of its "stand-by agreement" with the IMF.

In 1971 the balance of trade improved significantly as the deficit on current account went from the 1970 level of $70.8 million to about $28.5 million. In 1972, however,

HONDURAS MAYA HOTEL—*Almost $1 million worth of U.S. equipment, furniture and decorations, and general supplies have gone into this new hotel in Tegucigalpa.*

the deficit grew to about $46 million as exports fell and imports rose.

Traditionally the United States has absorbed a very high share of imports from Honduras compared with the other Central American countries and U.S. investment is probably larger in Honduras than in the other Common Market members.

Business ties are strong between the two countries and although tough competition has been offered by Japan and Western Europe in some lines, products made in the United States are still highly regarded for quality, particularly if fast service and spare parts are readily available. Uniformity of equipment is another important consideration for those Honduran buyers who already have some U.S. stock.

For U.S. firms interested in exporting to Honduras representation by agents who are efficient and alert to sales potential is highly recommended.

The government's investment program, although momentarily slowed, should continue to offer opportunities to U.S. exporters. Major areas of government interest continue to be roads, telecommunications, health, electric power and water, education, agriculture, and airport design and expansion.

U.S. aid is financing an agriculture sector analysis which should lead to more efficient agricultural development and the attendant need for tractors and other farming and livestock equipment. In the field of electric power, efforts to bring new towns into the national network are under way and a $100 million dam and power project is slated for construction in 1973-78. Expansion of international telephone service beyond the Central American area is under study.

There will be a need

There will be a need for new school equipment in connection with U.S. financing of school construction. There has also been a great deal of interest in ocean-going ferries to connect various points on both coasts and the Bay Islands. Finally, during 1973-74 two important hospitals are scheduled for construction and three others are planning to install new equipment.

In the private sector, food processing, fishing, and forestry are three areas of notable recent activity and tourism development continues to attract a great deal of interest.

Food processing and packaging has high potential since the food industry constitutes the most important segment of manufacturing by value of production and imports of processed food coming from the rest of Central America are still restricted. Specific lines of products needed would be dairy equipment, sausage processing and meat packaging equipment, canning machinery, and shrimp and lobster processing.

Although the shrimp and lobster industry continues to be active it is felt that at present the fishing fleet exceeds the optimum size required for production potential and hence the prospects for additional investments are probably limited to buying into existing plants or to processing fin fish exclusively. Possibilities for sales of equipment continue favorable, however.

Another area which has aroused considerable interest but for which the outlook for major private investment is not good is forestry. A new Forestry Law requires that the Honduran Government be a partner with up to 51 percent of the capital in large-scale projects. Moderate size investments are still being made without serious impediment and should not be discouraged, however.

Tourism development should be given a boost with the publication of the new Tourism Law recently passed by Congress. The law provides a sizable tax exemption for investors in hotels and other tourist facilities.

In summary, therefore, although there has been a slowdown in economic growth and particularly investment plans, Honduras continues to be a small but growing market for the United States. As the standard of living of the population improves, the people will be interested in buying larger amounts of general consumer goods, small appliances, etc. From the point of view of the trader the economy is relatively open and unrestricted. No foreign exchange controls exist at present and the nearness of the United States as a supplier gives it a favored position.

Trade Fairs, Centers

Sydney Trade Center Targets Market For Audio-Visual Aids

The Australian market for audio-visual aids appears to be approaching a takeoff point, and the U.S. Trade Center in Sydney has scheduled a May 14-18 show to help American suppliers gain the highest possible sales share.

Domestic production is negligible. Total annual imports of audio-visual equipment and material into Australia are estimated at between $6 and $7 million—U.S. firms supply about 50 to 60 percent of the import market.

State education departments now account for some 60 percent of the sales of audio-visual equipment, but sales to industry are accelerating. Trade sources say the market has hardly been tapped.

Have open minds

There is no discernible bias on the part of Australian purchasers in favor of U.S. equipment, but American products enjoy a good reputation. Australians do look to the United States for new and innovative techniques and equipment. The problem of price becomes more significant as the technological and quality gaps narrow between ourselves and third-country suppliers. In that regard, the Japanese have become increasingly competitive in the areas of student response systems, film strip, 16 mm., projectors, and video systems.

A seminar/workshop will be held in conjunction with the trade show. For more information, call John Klingelhut on (202) 967-5751, or write: Office of International Marketing, BIC-234, U.S. Department of Commerce, Washington, D.C. 20230.

Australian representatives of U.S. firms can arrange to participate in this exhibit through the Director of the U.S. Trade Center, 37 Pitt St., Sydney (Tel. 27-6635).

LOOKING IT UP—*Some of the 388 business visitors study U.S. metalworking firms' catalogs at a special week-long show in the commercial library of the U.S. Embassy in Tel Aviv. The Embassy forwarded a total of 2,226 trade inquiries developed at the show to U.S. firms. At the close of the show, two universities asked for the display catalogs, to exhibit in the libraries of their engineering schools. The Embassy recommends such shows as an ideal method for new firms to enter a foreign market.*

AT 200TH EVENT—*The French business press turned out in force for the briefing on Data General France's new EDP equipment at a between-show promotion at the Paris U.S. Trade Center. This was the 200th between-show event staged at the Trade Center since it was opened in November 1969.*

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

Hundreds Of Overseas Trade Fairs Open To Exhibits Of U.S. Products

U.S. businessmen interested in establishing an export program or expanding an existing one have more than 500 world-wide trade fairs at their disposal to help their sales promotion efforts.

To assist American businessmen in the selection of appropriate fairs, *Commerce Today* periodically publishes a schedule of future international fairs. These exhibitions range from the general type, which promote sales in numerous product categories, to the highly specialized fair, designed to attract buyers of specific products.

Events are listed by country, city, name, date and fair management address and are generally open to participation by any U.S. company in the related industry. Each firm may make arrangements for its own exhibit, including rental of space and utilities, transportation of products and setting up and manning of the booth, by communicating with the fair management directly.

For information on Commerce Department-sponsored events, address inquiries to the nearest U.S. Department of Commerce Field Office. A listing appears on the inside back cover of this magazine. These fairs are identified by a ★. Firms with limited experience in the field of international trade may find these U.S. Department of Commerce exhibitions (some of which are tentatively scheduled) especially helpful.

International trade fairs

For information on international trade fairs in which the U.S. Department of Commerce is not participating, please contact the foreign fair management at the listed address or write the Office of International Marketing, BIC-218, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230.

The following information on upcoming fairs is taken from the latest data available to the Department of Commerce. However, the Department cannot assume responsibility for accuracy of dates or for the outcome of any transactions with foreign fair managements.

Afghanistan

Kabul

August-September. Jeshyn Trade Fair. General. Afghan Ministry of Commerce, Kabul. Annual.

Algeria

Algiers

Aug. 31-Sept. 13. ★ONAFEX—10th Algiers Int'l Trade Fair. Exposition Palace, Pins Maritime, Algiers. Annual.

Argentina

Buenos Aires

May 11-27. Int'l Food Fair (with emphasis on the expansion of Latin American exports). Andrian Ollivier, Director General, Feria Internacional de la Alimentacion, Av. Cordoba 859, Piso 1°, Buenos Aires.

Australia

Adelaide

June 27-July 11. Caravan & Camping Show, R.A.S. Showgrounds, Wayville, Adelaide. Secretary, South Australian Chamber of Manufactures, 12 Pirie St., Adelaide, S.A. 5000.

July 5-10. Adelaide Boat Show, R.A.S. Showgrounds, Wayville, Adelaide. Secretary, South Aust. Boating Industry Assn., 4 Greenwood Grove, Urrbrae, S.A. 5064.

Brisbane

Feb. 24-March 3. Int'l Motor Show, Exbn. Grounds. Director, Chamber of Automotive Industries of Queensland, 62-70 Astor Terr., Brisbane, Qnld. 4000.

Aug. 9-18. Royal Nat'l Agricultural & Industrial Show, RNA&I Showgrounds, Fortitude Valley. Secretary, Royal Nat'l Agricultural & Industrial Assn. of Queensland, Gregory Terr., Fortitude Valley, Queensland 4006.

Carlton

April 8-15. Furniture Fashion Fair. Victorian Guild of Furniture Manufacturers Ltd., 110 Jolimont Rd., East Melbourne, Vic. 3002.

Claremont

Sept. 21-29. Royal Agricultural Show, R.A.S. Showgrounds. Director, Royal Agricultural Society of Western Australia, P.O. Box 135, Claremont, W.A. 6010.

October. Western Australia Furniture Exbn., R.A.S. Showgrounds. Secretary, Guild of Furniture Mfrs., 212-220 Adelaide Terr., Perth, W.A. 6000.

Kensington

July 15-20. Int'l Dental Exbn., U. of New South Wales. Gen. Coordinator, Total Concept Exbns., P.O. Box 127, Balgowlah, N.S.W. 2093.

Melbourne

March 3-12. Int'l Book Fair. Riddell Exbn. Promotions Pty. Ltd. Macquarie House, Suite 17, Victor House, 618 St. Kilda Rd., Melbourne, Vic. 3004.

March 8-17. Int'l Motor Show. Chamber of Automotive Industries, 464 St. Kilda Rd., Melbourne, Vic. 3004.

April 8-15. Australian Furniture Fashion Fair, Exbn. Bldg. Gen. Mgr., Victoria Guild of Furniture Mfrs., 110 Jolimont Rd., Melbourne, Vic. 3002.

May 28-June 1. Business Efficiency Fair. Riddell Exbn. Promotions Pty. Ltd., Suite 17, Victor House, 618 St. Kilda Rd., Melbourne, Vic. 3004.

June 8-17. Int'l Auto Sport and Motor Cycle Show. J. W. Abbott, 'Lakeland Park,' Lilydale, Vic. 3140.

June 21-27. Int'l Education Exbn. and Conference. Educare Exhibitions Pty. Ltd., 11 Manchester Sq., London, WIM 5AB.

July 6-14. The Nat'l Boat Show. Riddell Exbn. Promotions Pty. Ltd., Suite 17, Victor House, 618 St. Kilda Rd., Melbourne, Vic. 3004.

July 30-August 4. Int'l Engineering Exbn. and Int'l Gas Chemical & Petroleum Exbn., Exbn. Bldg. Manager, Thomson Exbn. Promotions, 47 Chippen St., Chippendale, N.S.W. 2008.

Aug. 13-15. Nat'l Accommodation & Catering Exbn., Exbn. Bldg. Marjorie C. Moore, Exec. Dir., Suite 20, 553 St. Kilda Rd., Melbourne, Vic. 3004.

Aug. 14-16. Hardware Trade Exbn., Exbn. Bldg. Secretary, Hardware Retailers Assn. of Victoria, 13 Atherton Rd., Oakleigh, Vic. 3166.

Aug. 20-26. Nat'l Radio and Electronic Engineering Convention. Institution of Radio and Electronics Engineers, Science House, 157 Gloucester St., Sydney, N.S.W. 2000.

Aug. 24-Sept. 1. Int'l Homes Exbn. Riddell Exbn. Promotions Pty. Ltd., Suite 17, Victor House, 618 St. Kilda Rd., Melbourne, Vic. 3004.

Sept. 20-29. Royal Agricultural Show, R.A.S. Showground. Secretary, Royal Agricultural Soc. of Victoria, Showground, Epsom Rd., Ascot Vale, Vic. 3032.

Oct. 8-13. Ausplas '73. Plastics Institute of Australia. 115 Latrobe St., Melbourne, Vic. 3000.

Perth

May 11-19. Western Australian Int'l Trade Fair, R.A.S. Showgrounds, John C. Waterman & Assoc., G.P.O. Box 2094, Perth, W.A. 6001.

Sydney

Feb. 21-25. Environment '73 (equipment and services for the measurement, control, and prevention of pollution). Total Concept Exhibitions Pty. Ltd., 57 Ethel St., Balgowlah, N.S.W., 2093.

March 11-14. Int'l Sporting Goods Fair and Int'l Toys & Games Display, Randwick Racecourse. Secretary, Aust.-British Trade Assn., 58 Margaret St., Sydney, N.S.W. 2000.

March 18-21. Stationery Trade Fair. Total Concept Exhibitions Pty. Ltd., 57 Ethel St., Balgowlah, N.S.W. 2093.

April 13-24. Royal Easter Show. Royal Agricultural Society of N.S.W., Showground, Paddington, N.S.W. 2021.

May 15-20. N.S.W. Guild Furniture Exhib. N.S.W. Guild of Furniture Manufacturers, 1 King St., Newton, N.S.W. 2042.

May 22-25. HEAVENT '73 (refrigeration, air conditioning, and heating). Total Concept Exhibitions Pty. Ltd., 57 Ethel St., Balgowlah, N.S.W. 2093.

August 8-13. Telegraph Boat Show. Boating Industry Assn. of New South Wales, 11 Clarke St., Crows Nest, 2065.

Aug. 24-Sept. 1. Motor Show, R.A.S. Showground. Secretary, Chamber of Automotive Industries of N.S.W., 35 Riley St., Potts Point, N.S.W. 2011.

Sept. 17-21. Control, Electronics, Telecommunications, Instruments and Automation Exbn. (CETIA). CETIA Exbn. Admin., G.P.O. Box 3629, Sydney, N.S.W. 2001.

Sept. 18-19. Hardware Retailers Exbn., R.A.S. Showground. Secretary, Hardware Retailers Assn., 6 Maddison Lane, Moore Park, N.S.W. 2010.

Nov. 20-22. DRILL '73 (drilling and mining equipment and services). Total Concept Exhibitions Pty. Ltd., 57 Ethel St., Balgowlah, N.S.W., 2093.

Wayville

Feb. 17-22. Int'l Motor Show. The Automotive Exhibitors Assn. of S.A., Inc., 276 Putney St., Adelaide, S.A., 5000.

May 5-12. Autumn Trade Fair (building and furnishing exbn.). Mrs. Zoe Lindsay, 12 Pirie St., Adelaide, S.A. 5000.

Austria

Dorbin

April 10-13. Second Austrian School Equipment Trade Fair. Export- und Mustermesse GmbH., Realschulstr. 6, A-6850 Dornbirn.

July 28-Aug. 5. 25th Dornbirn Fair. Export- und Mustermesse GmbH., Realschulstr. 6, A-6850 Dornbirn. Annual.

Graz

March 28-31. PROJEKT 2000. Int'l Water, Air, and Environmental Pollution Control Exbn. Fachausstellung GmbH., Bergstr. 22, A-5024 Salzburg. Irregular.

April 28-May 6. Spring Fair, Grazer Suedost—Messe, Messeplatz, A-8011 Graz. Annual.

WORLDWIDE SHOWCASE—*Hundreds of trade fairs throughout the world provide U.S. firms with a year-round showcase for their goods. Above is part of the U.S. exhibit at the 1972 electronics components show in Paris.*

Sept. 29-Oct. 7. Fall Fair, Grazer Suedost—Messe, Messeplatz, A-8011 Graz. Annual.

Oct. 24-26. BUERO 74—Sued-Ost Office Equipment Trade Exbn., Fachausstellungen GmbH., Bergstr. 22, A-5024 Salzburg. Irregular.

Innsbruck

May. BUERO 73—West, Office Equipment Trade Exbn., Fachausstellungen, GmbH., Bergstr. 22, A-5024 Salzburg. Irregular.

Sept. 22-30. Innsbruck Fair combined with Austrian Tourist Trade Fair. Innsbrucker Messe GmbH., Maria-Theresien-Strasse 45, A-6020, Innsbruck. Annual.

Ried

Aug. 25-Sept. 2. Austrian Agricultural Fair, Oesterreichische Landwirtschaftsmesse, Postfach 61. A-4910 Ried. Irregular.

Salzburg

Feb. 10-12. Leather Goods and Traveling Equip. Exbn., Fachausstellung GmbH., Bergstr. 22, A-5024 Salzburg. Irregular.

Feb. 17-19. JIM—Young Int'l Fashion, Fachausstellungen GmbH., Bergstr. 22, A-5024 Salzburg. Semiannual.

Feb. 23-26. SOUVENIR—Trade Fair of Souvenirs, Arts & Crafts & Advertising Gifts. Fachausstellungen GmbH., Bergstrasse 22, A-5024, Salzburg. Semi-annual.

March 17-19. MODE—Made in Austria Fashion Fair. Fachausstellungen GmbH., Bergstrasse 22, A-5024 Salzburg. Semi-annual.

May 5-7. EXPO-SA — Trade Exbn. of Watches & Jewelry. Fachausstellungen GmbH., Bergstrasse 22, A-5024 Salzburg. Annual.

May 31-June 3. OEDROGA — Austrian Trade Fair/Drugstore Items. Fach—Expo, Rott—Au 20, A-5013 Salzburg. Irregular.

Aug. 25-27. Leather Goods and Traveling Equip. Exbn. Fachausstellungen GmbH., Bergstr. 22, A-5024 Salzburg. Irregular.

Sept. 1-3. JIM—Young Int'l Fashion, Fachausstellungen, GmbH., Bergstr. 22, A-5024 Salzburg. Semiannual.

Sept. 22-24. MODE—Made in Austria Fashion Fair, Fachausstellungen GmbH., Bergstr. 22, A-5024, Salzburg. Semi-annual.

Sept. 22-24. ES—Trade Fair for Children's Clothing and Accessories. Fachausstellungen GmbH., Bergstrasse 22, A-5024 Salzburg. Semi-annual.

Oct. 13-15. SOUVENIR—Trade Fair of Souvenirs, Arts, Crafts, and Advertising Gifts, Fachausstellungen GmbH., Bergstrasse 22, A-5024 Salzburg. Semiannual.

Nov. 10-14. ALLES FUER DEN GAST—Hotel and Catering Trade Exbn. Arbeitsgemeinschaft fuer Fachausstellungen, AFA, A-5013, Salzburg. Annual.

Wels

Feb. 1-4. TEX—BO—Trade Exbn. for Home Furnishings and Floor Coverings. Fachausstellungen GmbH., Bergstr 22, A-5024, Salzburg. Annual.

Feb. 21-25. AUSTRO SHOP WELS 1973—Exbn. for Shop Construction and Equip. Welser Messe, Messegelaende, A-4601 Wels. Irregular.

May 12-20. Hotel and Tourist Equip. Welser Messe, Messegelaende, A-4601 Wels. Irregular.

SPECIAL BRIEFING—*Commerce Department participation in an overseas trade show provides U.S. exhibitors with many extra services. Above, a Commerce specialist briefs U.S. participants before the opening of London's IEA 72 exhibition.*

Vienna

March 7-11. Vienna Int'l Spring Fair. Messeplatz 1, Postfach 124, A-1071 Vienna. Annual.

Apr. 1-4. WDW—38th Vienna Ladies' Fashion Week. Fachverband der Bekleidungsindustrie, Schwarzenbergplatz 4, A-1030 Vienna. Semi-annual.

Sept. 5-9. Vienna Int'l Fall Fair. Messeplatz 1, Postfach 124, A-1071 Vienna. Annual.

October. Industrielle Elektronik Wien 73. Second Int'l Electronics Exbn. Arbeitsgemeinschaft fuer Fachausstellungen Loquaiplatz 13, A-1060 Vienna. Annual.

Oct. 7-10. WDW — 39th Vienna Ladies Fashion Week. Fachverband der Bekleidungsindustrie, Schwarzenbergplatz 4, A-1070 Vienna. Semi-annual.

Belgium

Brussels

March 3-11. Int'l Garden & Swimming Pool Equip. Exbn. Sogestor, 14 Rue Duchesnoy, Brussels.

March 16-25. Int'l Exbn. for Inventions and New Products. Chambre Syndicale Belge, 109 Rue Defacqz, Brussels.

April. SADIBEL. Int'l Teaching Equip. Exbn. SADIBEL, Mme. Ruysseveldt-Herbiet, 183 Ave. Ed. Benes, 1080 Brussels.

May 5-13. EUROPLASTICA—4th Int'l Plastics Exbn. Foire Internationale de Bruxelles, Palais du Centenaire, Brussels 2.

May 12-16. AUVIC 73—2nd Int'l Audio-Visual and Communications Equip. Exbn. PROMINTEC, 34 rue du Progres, 1000 Brussels.

June 19-21. INTERNEPCON/EUROPA. Industrial and Scientific Conference Management, Inc., 222 W. Adams St., Chicago, Ill. 60606.

Sept. 9-16. INTERMAT—2nd Int'l Exbn. of Civil Engineering and Construction Site Equip. Foire Internationale de Bruxelles, Palais du Centenaire, Brussels 2.

Sept. 11-15. 3rd Int'l Municipal Equip. Show. Foire Internationale de Bruxelles, Palais du Centenaire, Brussels 2.

Ghent

Feb. 2-6. TEXTIRAMA—Int'l Textile and Clothing Industries Exbn. Textirama v.z.w., Martelaarslaan 15, B-9000 Ghent.

Liege

Apr. 28-May 13. Int'l Trade Fair. General. Foire Internationale de Liege, 6 Ave. Malvoz—B.P. 52, B-4000 Liege 1.

Bolivia

Santa Cruz

September. 9th Farm, Cattle, Commercial, Industrial and Handicraft Show. Casilla 116, Santa Cruz. Annual.

Brazil

Sao Paulo

March 19-25. ★V Int'l Graphic Arts, Paper and Cellulose Trade Fair. Alcantara Machado Comercio e Empreedimentos Ltda., Rua Brasilio Machado 60, Sao Paulo. Biennial.

March 19-25. ★VI Int'l Packaging Trade Fair. Alcantara Machado Comercio e Empreendimentos Ltda., Rua Brasilio Machado 60, Sao Paulo. Biennial.

June 2-10. Textile Machinery and Equip. Trade Fair. Alcantara Machado Comercio e Empreendimentos Ltda., Rua Brasilio Machado 60, Sao Paulo. Annual.

July 13-22. Int'l Food and Agricultural Exbn. Alcantara Machado Comercio e Empreendimentos Ltda., Rua Brasilio Machado 60, Sao Paulo. Biennial.

Sept. 14-23. ★First Int'l Aerospace Show. Alcantara Machado Comercio e Empreendimentos Ltda., Rua Brasilio Machado 60, Sao Paulo. Quadrennial.

Bulgaria

Plovdiv

Sept. 23-Oct. 2. Plovdiv Int'l Trade Fair, 50 Lenin Blvd., Plovdiv. Annual.

Burma

Rangoon

March. 9th Gem, Jade & Pearl Emporium. Trade Corp. No. 19,83/85. Annual.

Canada

Abbotsford

Aug. 10-12. Abbotsford Int'l Air Show. Abbotsford Int'l Airport, B.C. Air Show Society, Box 361, Abbotsford, B.C. Annual.

Montreal

Jan. 23-25. Canadian Pulp & Paper Assn. Technical Products Display. Canadian Pulp and Paper Assn., 2300 Sun Life Bldg., Montreal 110, Quebec. Annual.

Jan. 28-Feb. 1. Sporting Goods & Cycle Show. 2115 Drummond St., Montreal 107, Quebec.

Feb. 23-March 3. Nat'l Boat Show. 67 Yonge St., Toronto 1, Ontario. Annual.

Feb. 11-16. Canadian Toy Fair. 26 Notre Dame St., West Montreal, Quebec.

March 11-15. Montreal Spring Gift Show. Seccombe House, 1450 Don Mills Rd., Don Mills, Ontario. Annual.

March 12-15. Nat'l Hotel, Restaurant & Institute Suppliers Exbn. 3637 Metropolitan E., Rm. 801, Montreal, Quebec. Annual.

May 29-31. Canadian Plant Engineering & Industrial Equip. Show.

Aug. 12-16. Montreal Furniture Mart. 39 Elysee Pl., Bonaventure, Montreal 114, Quebec. Annual.

Nov. 12-15. Canadian Nat'l Business Show. 1450 Don Mills Rd., Don Mills, Ontario. Annual.

Toronto

Jan. 31-Feb. 3. Canadian Farm & Industrial Equip. Show. Ontario Retail Farm Equip. Dealers Assn., Suite 207, 145 Sheppard Ave. E Willowdale, Ontario. Annual.

Feb. 1-11. Toronto Int'l Boat Show. Box 168 Toronto Pom. Center, Toronto 1, Ontario. Annual.

Feb. 12-14. Canadian Hardware Show. 290 Merton St., Toronto 7, Ontario. Annual.

March 16-25. Canadian Nat'l Sportsmen's Show. Suite 4904, P.O. Box 168, Toronto-Dominion Centre, Toronto 1, Ontario. Annual.

March 8-11. Canadian Pool & Patio Shows. 1819 Yonge St., Toronto 7, Ontario. Annual.

April 6-14. Nat'l Home Show. Toronto Metropolitan Home Bldrs. Assn., 1819 Yonge St., Smedmor Ltd., Toronto 7, Ontario. Annual.

April 9-11. Industrial Accident Prevention Assn. & Safety Show. 74 Victoria St., Toronto 1, Ontario. Annual.

April 29-May 2. Food Service & Hospitality Show. 60 Ave. Road, Toronto, Ontario. Annual.

Sept. 24-26. Canadian Computer Show. Industrial Trade Shows Canada, 481 University Ave., Toronto 2, Ontario. Annual.

Oct. 25-27. Canadian Education Showplace. Industrial and Trade Shows of Canada, 481 Univ. Ave. Annual.

November. ★Canadian Retail Grocers Show. Industrial and Trade Shows, 481 University Ave., Toronto 2, Ontario. Annual.

Nov. 12-15. ★Canadian National Business Show. 1819 Yonge St., Toronto 7, Ontario. Annual.

Vancouver

April 9-14. Pacific Int'l Motorama. 6871 Raleigh, Vancouver 16, British Columbia. Annual.

Colombia

Bogota

August 1974. 10th Int'l Fair of Bogota. Corporacion de Ferias y Exposiciones S.A., Feria Internacional de Bogota Carrera 40, No. 22c-67, Bogota. Biennial.

Cyprus

Nicosia

September. Cyprus Int'l Fair. Organizing Committee, Cyprus Int'l Fair, Ltd., 250 Ledra St., P.O. Box 1094, Nicosia. Annual.

Czechoslovakia

Bratislava

June 23-29. INCHEBA—Int'l. Chemical Exbn. Drienova ulice 24, Bratislava. Annual.

October. AVRO 73—6th Int'l Audio, Video & Radio Exbn. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Brno

April 7-15. Brno Int'l Consumer Goods Fair. Brno Trade Fair Management, Vystaviste 1, Brno. Annual.

June 25-29. EMBAX—Exbn. of Packaging Machinery & Materials. Brno Trade Fair Management, Vystaviste 1, Brno. Annual.

Sept. 6-16. ★15th Brno Int'l Engineering Fair. Brno Trade Fair Management, Vystaviste 1, Brno. Annual.

Oct. 15-24. INTECO 73—Exbn. of Retail and Restaurant Equip. Brno Trade Fair Management, Vystaviste 1, Brno. Annual.

Plzen

June 27-July 8. EX PLZEN—8th Int'l Exbn. of Gastronomy & Tourism. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Prague

Feb. 26-March 2. INTERMER 73—Exbn. of Electric & Electronic Measuring Instruments. RAPID, 28 Rijna 13, Prague 1.

June 26-July 5. "Autoprogress Praha 73"—Exbn. of Automotive Servicing Equip. RAPID, 28 Rijna 13, Prague 1.

September. MEDIEXPO 73—Third Int'l Exbn. of Medical Equip. and Pharmaceuticals. "Made in Publicity," Opletalova 5, Prague 1. Annual.

October. AVRO 73—Sixth Int'l Audio, Video, & Radio Exbn. (to be held simultaneously in Bratislava) "Made in Publicity," Opletalova 5, Prague 1. Annual.

October. CONECO 73—Exbn. of Building Construction & Fittings for Architecture. "Made in Publicity," Opletalova 5, Prague 1. Biennial.

November. PRAGOTHERM 73—Sixth Int'l Exbn. of Heating & Air-Conditioning Technology and Sanitary Facilities. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Zilina

June 30-July 6. SYMPOMECH 73: Third Int'l Symposium & Exbn. of Mini-Mechanization in Construction. SYMPOMECH Secretariat, Vaclavske N.55, Prague 1.

Denmark

Copenhagen

Feb. 25-27. 5th Scandinavian Menswear Fair 73. Bella Center, Hvidkildevej 64, DK-2400 Copenhagen.

Mar. 18-21. 15th Scandinavian Fashion Week 73. Women's wear. Bella Center, Hvidkildevej 64, DK-2400 Copenhagen.

Sept. 16-19. 16th Scandinavian Fashion Week 73. Women's wear. Bella Center, Hvidkildevej 64, DK-2400 Copenhagen.

Oct. 12-21. Int'l Food Fair 1973. Bella Center, Hvidkildevej 64, DK-2400 Copenhagen.

Ecuador

Guayaquil

October. Int'l Trade Fair. Ferias S.A. P.O. Box 4184, Guayaquil. Annual.

El Salvador

San Salvador

November 1974. 6th Int'l Fair of El Salvador. Comite Ejecutivo de la Feria Internacional de El Salvador, Blvd. de Las Fuerzas Armadas No. 222, San Salvador. Biennial.

Finland

Helsinki

March. Int'l Boat Show. Suomen Messut, SF-00250 Helsinki 25.

May 17-21. KULJETUS—Int'l Transport and Packing Exbn. Suomen Kuljetustaloudellinen yhdistys r.y., Frederikinkatu 36 B, 24 Helsinki 10.

Aug. 2-9. METEOREX '73. Int'l Exbn. of Meteorological and Pollution Measuring Instruments. Meteorex 73 Exbn. Committee, P.O. Box 503, Helsinki 10.

September. Helsinki Int'l Technical Fair. Suomen Messut, SF-00250 Helsinki 25.

France

Bordeaux

April 5-8. Oyster Industry Eqpt. Show. Salon de Materiel Ostreicole, Mairie, 17390 La Tremblade.

Cannes

Jan. 20-26. MIDEM—Int'l Record and Music Publishing Market. Palais des Festivals. Annual.

Dijon

Nov. 3-11. SIVA Food & Wine Show.

Grenoble

Feb. 16-19. Int'l Winter Sports Equip. Exbn.

Marseille

Sept. 20-Oct. 1. 49th Int'l Fair.

Oyonnax

May 17-21. Optical Eqpt. Exbn.

June 14-18. Int'l Plastics Exbn.

Paris

January. Leather Goods & Luggage Exbn., 6 Rue Beranger, 75, Paris 3e. Semiannual.

January. Audiovisual & Communications Equip. Exbn. Porte de Versailles.

Feb. 10-13. Corsetry & Women's Lingerie Exbn., 11 Rue Anatole de la Forge, 75, Paris 17e. Annual.

Feb. 10-13. Knitwear Industries Exbn., 11 Rue Anatole de la Forge, 75, Paris 17e. Semi-annual.

Feb. 10-13. European Men's Wear Show. 8 Rue Richelieu, 75 Paris ler. Semiannual.

Feb. 10-13. Children's Fashion Exbn. 11 Rue Anatole de la Forge, 75, Paris 17e. Semi-annual.

Feb. 10-16. Int'l Games & Toys Exbn. 93 Rue de Turenne, 75, Paris 3e. Annual.

Feb. 24-March 11. Int'l Arts of Homemaking Exbn. 15 Ave. de la Division-Leclerc, 92, Puteaux. Annual.

Feb. 27-March 4. Int'l Audio Festival. 14 Rue de Presles, 75, Paris 15e. Annual.

March 4-10. Int'l Agricultural Machinery Show. 95 Rue Saint Lazare, 75, Paris 9e. Annual.

March 4-11. Int'l Agricultural Show. 19 Blvd. Henri IV, 75, Paris 4e. Annual.

March 4-11. Int'l Power Gardening & Cultivation Show. 95 Rue Saint Lazare, 75, Paris 9e. Annual.

March 25-29. Int'l Tableware Show. 32 Rue de Paradis, 75, Paris 10e. Annual.

March 30-April 3. Int'l Fur Industries Exbn. 36 Ave. de l'Opera, 75, Paris 2e. Annual.

March 31-April 5. Int'l Ladies Ready-to-Wear Clothing Exbn. & Section Boutique. 69 Rue de Richelieu, 75, Paris 2e. Semiannual.

March 31-April 3. INTERSUC—Int'l Confectionery, Chocolate & Biscuit Trade Exbn. 48 Ave. de Villiers, 75, Paris 17e. Annual.

April 2-7. Int'l Electronic Components Exbn. 14 Rue de Presles, 75, Paris 15e. Annual.

April 11-18. MESUCORA — Measurement, Control and Analysis Exhibition &

Physics Exhibition, 20 Rue Carpeaux 92 Puteaux.

April 13-28. Paris Int'l Trade Fair. Comite des Expositions, 7 Rue Copernic, 75, Paris 16e. Annual.

May 17-28. Int'l Ophthalmic Optics Industry Show.

May 21-26. Surface Treatment and Industrial Finishes Exbn.

May 21-26. MACANELEM — Hydraulics, Pneumatics & Mechanical Transmission and Components Exbn., 20 Rue Carpeaux, 92 Puteaux.

May 24-June 3. ★Paris Air Show—Aeronautics and Space Exhibition. Le Bourget, 6 Rue Galilee, 75, Paris 16e. Biennial.

May. Int'l Materials Handling and Container Equip. Exbn. 20 Rue Carpeaux, 92 Puteaux.

May. Int'l Dental Exbn. 22 Ave. de Villiers, 75, Paris 17e.

May. Business Gift Fair. 24 Place Malesherbes, 75, Paris, 17e. Annual.

June 2-8. ★INOVA '73. Design Engineering Exbn. Porte de Versailles.

June 2-8. INTERCIRCULATION — Traffic Control & Safety Exbn.

June 2-8. EXPOBOIS—Int'l Woodworking Machinery & Wood Industry Exbn. 150 Blvd. Bineau, 92, Neuilly Sur Seine.

June. Leather Goods & Luggage Exbn. 6 Rue Beranger, 75, Paris 3e. Semiannual.

Sept. 2-10. Jewelry, Gold & Silver, Clockware, & Gift Week. 10 Rue Charlot, 75, Paris 3e. Semiannual.

Sept. 5-10. Commercial & Professional Art Workshops Exbn. 45 Rue des Petites Ecuries, 75, Paris 10e. Semiannual.

Sept. 8-11. European Men's Wear Show. SEHM 8 Rue de Richelieu, 75, Paris ler. Semi-annual.

Sept. 8-11. Int'l Leather Week. 2 Rue Edouard VII, 75, Paris 9e. Annual.

September. Knitwear Industries Exbn. 11 Rue A. de la Forge, 75, Paris 17e. Semiannual.

Sept. 15-18. Children's Fashion Exbn. 11 Rue A. de la Forge, 75, Paris 17e. Semiannual.

Sept. 22-26. Int'l Sporting Goods and Fishing Equip. Exbn. 15 Rue de la Paix, 75, Paris 2e. Annual.

Sept. 26-Oct. 5. SICOB—Int'l Exbn. of Data Processing, Communication & Office Organization. 6 Place de Valois, 75, Paris ler. Annual.

September. Europrotection—Safety and Security Equip. Exbn. Le Bourget.

Sept. 28-Oct. 8. Int'l Camper & Mobile Home Exbn.

October. Int'l Automobile, Bicycle, Motorcycle & Sport Show. 3 Ar. du President Wilson, 75, Paris 16e. Annual.

Oct. 11-22. EQUIPHOTEL—Int'l Hotel & Restaurant Exbn. 13 Rue de Liege, 75, Paris 9e. Annual.

Oct. 20-25. Int'l Ladies' Ready to Wear Clothing Exbn. & Section Boutique. 69 Rue de Richelieu, 75, Paris 2e. Semiannual.

Nov. 5-12. EQUIPMAG—Int'l Retail Trades Equip. Show. 42 Rue du Louvre, 75, Paris ler.

Nov. 10-18. Int'l Photographic, Cinematographic and Optical Exbn. 5 Bis Rue Jacquemont, 75, Paris 17e.

Nov. 15-25. BATIMAT — Int'l Building Equip. Show. 1 Ave. Niel, 75, Paris 17e.

Nov. 30-Dec. 7. Int'l Handling Equip. Exbn. 4 Place de la Defense 92, Paris.

November. Do-It-Yourself Exbn. CNIT, Paris.

December. Int'l Laboratory and Equip. Supply Exbn. Porte de Versailles.

Rouen

April 21-May 6. Rouen Normandy Trade Fair.

June 12-18. EUREXPORT.

Oct. 9-14. PROTECNA.

For information about exhibitions in France contact: French Trade Shows, 1350 Avenue of the Americas, New York, N.Y. 10019.

Germany, E.

Leipzig

March 11-20. Int'l Spring Trade Fair. Leipziger Messeamt, Postfach 720, 701 Leipzig, German Dem. Rep. Semiannual.

Sept. 2-9. Int'l Fall Trade Fair. Leipziger Messeamt, Postfach 720, 701 Leipzig, German Dem. Rep. Semiannual.

Germany, Fed. Rep.

Berlin

Jan. 26-Feb. 4. Int'l Green Week. Messedamm 22, 1 Berlin 19. Annual.

Feb. 24-March 4. Int'l Boat Show & Watersport Exbn. Messedamm 22, 1 Berlin 19. Annual.

Feb. 24-March 4. 7th Int'l Tourism Exchange (ITB). Messedamm 22, 1 Berlin 19. Annual.

April 1-5. 9th INTERCHIC Berlin—Fashion Fair. Messedamm 22, 1 Berlin 19. Semi-annual.

April 1-9. 91st Int'l Berlin Fashion Week. Hardenbergstr. 16-18, 1 Berlin 12. Semiannual.

June 12-17. Int'l Pharmaceutical & Medico-Technical Exbn. Messedamm 22, 1 Berlin 19. Annual.

Aug. 31-Sept. 9. Int'l Radio & TV Show. Messedamm 22, 1 Berlin 19.

Sept. 21-25. 11th Overseas Import Fair, "Partners for Progress." Messedamm 22, 1 Berlin 19. Annual.

Oct. 14-18. 10th INTERCHIC Berlin—Fashion Fair. Messedamm 22, 1 Berlin 19. Semiannual.

Oct. 14-23. 93rd Int'l Berlin Fashion Week. Hardenbergstr. 16-18, 1 Berlin 12. Semiannual.

Cologne

Jan. 24-28. German Furniture Fair. Postfach 210760, 5 Koeln 21. Biennial.

Feb. 6-10. ISM 73—Int'l Sweets & Biscuits Fair. Postfach 210760, 5 Koeln 21. Annual.

Feb. 18-21. Int'l Housewares & Domestic Appliances Fair. Postfach 210760, 5 Koeln 21. Annual.

Early March. Int'l Fashion Fair—Special Fair for Men's Leisure Wear. Postfach 210760, 5 Koeln 21. Annual.

March 9-11. Int'l Hardware Fair. Postfach 210760, 5 Koeln 21. Annual.

March 23-25. Int'l Fair for the Child. Postfach 210760, 5 Koeln 21. Annual.

April 9-12. Int'l Sports Facilities & Swimming Pool Installation Show. Postfach 210760, 5 Koeln 21.

May 6-7. Barbering & Hairdressers' Supplies, Toiletry & Cosmetics Show. Merlostr. 6, 5 Koeln.

May 17-20. INTERZUM—Int'l Fair of Accessories, Materials and Machinery for

HERE'S HOW—*When the equipment is a bit complex, it pays to have someone on hand to clear things up. This exchange took place at the Hanover Air Show.*

Furniture Production, Interior Finishing and Decoration. Postfach 210760, 5 Koeln 21. Biennial.

May 23-27. IMB—Int'l Clothing Machinery Fair. Postfach 210760, 5 Koeln 21.

Aug. 24-26. Int'l Men's Fashion Week. Postfach 210760, 5 Koeln 21. Annual.

Sept. 22-27. ANUGA—Fine Foods & Provisions Exhibit. Postfach 210760, 5 Koeln 21. Biennial.

Oct. 7-9. SPOGA—Int'l Trade Fair of Sporting Goods, Camping Equip. & Garden Furniture. Postfach 210760, 5 Koeln 21. Annual.

Oct. 21-25. ORGATECHNIK—Office & Plant Organization and Techniques Exbn. Postfach 210760, 5 Koeln 21.

Duesseldorf

Jan. 27-Feb. 4. "Boot 73"—Int'l Boat Exbn. Postfach 10203, 4 Duesseldorf 10. Annual.

March 11-14. 96TH IGEDO—Int'l Fashion Trade Fair. Freiligrathstr. 28, 4 Duesseldorf. Quarterly.

March 24-26. 35TH GDS—European Footwear Sample Display. Postfach 10203, 4 Duesseldorf 10. Semiannual.

April 11-15. 97TH IGEDO—Int'l Fashion Trade Fair. Freiligrathstr. 28, 4 Duesseldorf. Quarterly.

May 10-15. ★INTERPACK—Int'l Packaging Machinery, Materials & Confectionery Machinery Fair. Postfach 10203, 4 Duesseldorf 10. Biennial.

Sept. 9-12. 98TH IGEDO—Int'l Fashion Trade Fair. Freiligrathstr. 28, 4 Duesseldorf. Quarterly.

Sept. 22-24. 3RD GDS—European Footware Sample Display. Postfach 10203, 4 Duesseldorf 10. Semiannual.

Oct. 3-6. Industrial Safety and Factory Hygiene Convention and Exbn. Postfach 10203, 4 Duesseldorf 10.

Oct. 8-14. ★ENVITEC 73—Environmental Pollution Control Techniques Exbn. Postfach 10203, 4 Duesseldorf 10.

Oct. 26-30. 99TH IGEDO—Int'l Fashion Trade Fair. Freiligrathstr. 28, 4 Duesseldorf. Quarterly.

Nov. 13-18. INTEROCEAN 73—Int'l Oceanic Research & Exploitation Exhibit. Postfach 10203, 4 Duesseldorf 10. Triennial.

Essen

Feb. 3-11. DEUBAU 73 — 6th German Building Exbn. Norbertstr. 56, 43 Essen.

Sept. 19-27. 8th Int'l Welding Fair. Norbertstr. 56, 43 Essen. Quadrennial.

Frankfurt

Feb. 25-March 3. Frankfurt Int'l Fair. Postfach 970126, 6 Frankfurt/M 97. Semiannual.

March 28-April 1. ISH—7th Int'l Exbn. Sanitation-Heating-Air Conditioning. Postfach 970126, 6 Frankfurt/M 97. Biennial.

April 27-May 1. Int'l Fur Fair. Bettinaplatz 1, 6 Frankfurt/M 97. Annual.

May 15-18. 29TH INTERSTOFF — Trade Fair for Clothing Textiles. Postfach 970126, 6 Frankfurt/M 97. Semiannual.

June 20-27. ★ACHEMA 1973—17th Chemical Engineering Exbn. & Convention. Postfach 970126, 6 Frankfurt/M 97. Triennial.

Aug. 26-29. Frankfurt Int'l Fair. Postfach 970126, 6 Frankfurt/M 97. Semiannual.

Sept. 13-23. IAA—Int'l Automobile Show. Postfach 174249, 6 Frankfurt/M 17.

Oct. 11-16. Frankfurt Book Fair. Postfach 3914, 6 Frankfurt/M 1. Annual.

Nov. 20-23. 30TH INTERSTOFF — Trade Fair for Clothing Textiles. Postfach 970126, 6 Frankfurt/M 97. Semiannual.

Friedrichshafen

Sept. 29-Oct. 7. 12TH INTERBOOT—Int'l Boat Show. Riedlepark, 799 Friedrichshafen A.B. Annual.

Hamburg

March 22-28. INTERNORGA—Int'l Trade Exbn. for Gastronomy, Bakeries & Confectioners. Jungiusstr., 2 Hamburg 36. Annual.

April 27. IGA 73—Int'l Horticultural Exhibit. IGA—Haus, 2 Hamburg 36. Biennial.

May 23-26. VKF—Public Works & Municipal Services Exbn. Lindenallee 11, 5 Koeln 1.

Oct. 27-Nov. 4. 14th German Boat Show Int'l. Jungiusstr., 2 Hamburg 36. Annual.

Hanover

April 26-May 4. Hanover Fair 1973. Messegelaende, 3 Hanover. Annual.

May 22-25. FAB—Hospital Equip. & Supplies Trade Show. Messegelaende, 3 Hanover.

Sept. 18-27. IHA 73—Int'l Machine-Tool Exbn. Verein Deutscher Werkzeugmaschinenfabriken e.V.-VDW, Corneliusstr. 4, 6 Frankfurt/M. Triennial.

Karlsruhe

Aug. 26-Sept. 2. Medical & Therapeutical Exbn. & 25th German Therapeutical Week. Postfach 1208, 75 Karlsruhe 1. Annual.

Munich

Feb. 22-25. ISPO—Int'l Sports Equip. Fair. Postfach 200, 8 Munich 12. Annual.

March 10-18. BAUMA—Int'l Construction Machinery Fair. Postfach 200, 8 Munich 12. Biennial.

March 25-29. Fashion Week Munich—Int'l Trade Fashion Show. Postfach 106, 8 Munich 12. Semiannual.

April 7-15. IHM 73—25th Int'l Light Industries & Handicrafts Fair. Postfach 75, 8 Munich 2. Annual.

Sept. 4-7. ★LASER: Exbn. for Electro-Optical Systems and their Application in Industry and Research. Postfach 200, 8 Munich 12. Biennial.

Oct. 7-11. Fashion Week Munich—Int'l Trade Fashion Show. Postfach 106, 8 Munich 12. Semiannual.

Oct. 18-21. Int'l Trade Exbn. of Wintersports Service Equip. and Appliances. Postfach 200, 8 Munich 12. Biennial.

Nov. 8-14. IGAFA—7th Int'l Hotel & Catering Exbn. Postfach 200, 8 Munich 12. Biennial.

Nov. 27-30. ★SYSTEMS 73—Int'l Computer and Peripheral Eqpt. Exbn. Postfach 200, 8 Munich 12. Biennial.

Nuremberg

Feb. 3-9. Int'l Toy Fair. Berliner Platz 24, 85 Nuremberg. Annual.

Offenbach

Feb. 24-March 1. Int'l Leather Goods Fair. Postfach 32, 605 Offenbach/M 1. Semiannual.

Aug. 25-29. Int'l Leather Goods Fair. Postfach 32, 605 Offenbach/M 1. Semiannual.

Pirmasens

April 13-17. IMS—10th Int'l Footwear Manufacturing Fair and Pirmasens Leather Exbn. Dankelsbachstr. 19, 678 Pirmasens.

Saarbrucken

April 7-15. Int'l Saar Fair. Messegelaende, 66 Saarbrucken. Annual.

Stuttgart

Feb. 21-25. INTHERM 73—Int'l Trade Fair for Oil Firing, Gas Firing, Heating, Air Conditioning, Environmental Engineering. Postfach 990, 7 Stuttgart 1. Annual.

May 24-27. R 73—Int'l Blind & Revolving Shutter Products Fair. Postfach 990, 7 Stuttgart 1. Biennial.

May 30-June 3. 6th German Weapons Exchange. Postfach 990, 7 Stuttgart 1. Annual.

Greece

Athens

June 3-9, 1974. Posidonia Int'l Shipping Exbn. Fairfax House, Colchester, Essex, England.

Oct. 9-15, 1974. INDEX '73—Mechanical Equip. Exbn. General Organizations GENOR, A.G. Liaco Ltd. 36 Skoufa St., Athens 135.

Thessaloniki

Sept. 2-23. ★Thessaloniki Int'l Trade Fair. Foire Internationale de Thessaloniki, Thessaloniki.

Guatemala

Guatemala City

Oct. 31-Nov. 18. INTERFER 73—Agricultural and light industrial fair. Permanent Exbn. Committee, 8A Calle 2-33, Zona 9, Guatemala City. Biennial.

Hong Kong

June 18-23. ★U.S. Exbn.: Data Processing, Reprographic, and Office Equip.; Industrial, Scientific, Test, and Measuring Instruments (Participation closed).

Oct. 15-28. American Fortnight—In-store promotion of consumer products. Trade Expansion Committee of the American Chamber of Commerce, Hong Kong.

December. ★U.S. Exbn.: Industrial Equip.

Hungary

Budapest

April 11-16. HUNGAROPLAST—Specialized Int'l Exbn. of Plastics (including machinery, instrumentation and products). Annual.

May 10-16. KLIMATHERN — Specialized Int'l Exbn. of Heating, Air-Conditioning, and Refrigeration Machinery and Equip.

May 18-28. ★Budapest Int'l Fair. General Int'l Exhibit of Capital Goods. Annual.

Sept. 6-12. HOME 74—Specialized Int'l Exbn. of Home Furnishings and Appliances. Annual.

Sept. 7-16. AGROMASEXPO '73—Specialized Int'l Exhibition of Food Industry and Agricultural Machinery and Equipment.

Sept. 21-27. HUNGAROKOOR '73—Specialized Int'l Exhibition of Equipment and Instrumentation for the Prevention and Control of Corrosion. Triennial.

Oct. 16-23. MIKRONIKA—ELECTRONIKA—AUTOMATIKA '73 — Specialized Int'l Exbn. of Electronics and Miniaturization Techniques. Triennial.

The Hungarian Trade Fair Authority is: HUNGEXPO, Varosliget, Budapest XIV.

Indonesia

Jakarta

June-July. Jakarta Fair—General Trade Fair. Jakarta Fair Management Board, Lapangan Merdeka Monas, Jakarta.

Iran

Tehran

Sept. 11-21. Tehran Int'l Trade Fair. Iran Int'l Fairs and Exbns. Corp., P.O.B. 22, Tadjrish, Tehran.

Ireland

Dublin

Oct. 9-13. ETEX—Int'l Education and Training Exbn. and Conf. Education and Training Assoc., 74 Northumberland Rd., Ballsbridge, Dublin 4.

Israel

Tel Aviv

June 24-28. Instrument Management Sciences, Hilton Hotel. Instrument Management Sciences, Mrs. Mary De Melim, Executive Secretary, 146 Westminster St., Providence, R.I. 02903.

Sept. 17-24. Int'l Building Exbn. "Yerid Hamizrakh" Exhibitions Co. Ltd., Exbn. Gardens, P.O.B. 21075, Tel Aviv, 61210, Cables: INTERFAIR.

Oct. 23-31. ★Int'l Trade Fair "Technology 73." "Yerid Hamizrakh" Exhibitions Co. Ltd., Exbn. Gardens, P.O.B. 21075, Tel Aviv 61210, Cables: INTERFAIR.

Dec. 10-17. Human and Natural Resources Exbn.

Italy

Bari

January. MACEF-LEVANTE — Household Goods, Glassware, Ceramics, Hardware & Tool Show. Ente Autonoma Fiera del Levante, Bari. Annual.

April 1-8. EXPOSPORT LEVANTE — Sport Equip. Show. Ente Autonomo "Fiera del Levante," Bari. Annual.

May. SA-CHI-A—Show of Chemical, Industrial & Agricultural Techniques. Unime Nazionale Chimici Italiani, Via Marianna Dioniogi 29, Roma. Annual.

May-June. MOBIL-LEVANTE — Furniture & Interior Decoration Show. Ente Autonomo "Fiera del Levante," Bari. Annual.

September. LEVANT FAIR—Int'l Samples Fair. Ente Autonomo "Fiera del Levante," Bari. Annual.

Bologna

March 10-13. Int'l Exbn. of Footwear Fashions, Via G. Ciamician 4, Bologna. Annual.

April 5-8. Children's Book Fair. Via G. Ciamician 4, Bologna. Annual.

April. N.T.A.—Exbn. of New Learning Techniques. Via G. Ciamician 4, Bologna. Annual.

April-May. COSMOPROF—Int'l Perfumery & Cosmetics Show. Via G. Ciamician 4, Bologna. Annual.

May. Int'l Samples Fair. Via G. Ciamician 4, Bologna. Annual.

September. MODA-MAGLIA—Int'l Exbn. of Knitwear. Via G. Ciamician 4, Bologna. Annual.

September. SIA—Int'l Food Show. Via G. Ciamician 4, Bologna. Annual.

October. SAIE—Exbn. of Industrialization in Building. Via G. Ciamician 4, Bologna. Annual.

November. EIMA—Int'l Show of the Farm Machinery Industries. Via G. Carducci 2, Roma. Annual.

Bolzano

September. Int'l Samples Fair. Via Roma 18, Bolzano. Annual.

Florence

April 22-May 7. Int'l Handicrafts Exhibit & Fair. Annual.

September. Sample Exhibit of Footwear, Leather Goods & Leather. Via Volfonda 9, Florence. Annual.

Genoa

Feb. 1-10. Int'l Boat Show & Int'l Exbn. of Underwater Equip. Ente Autonoma "Fiera Internazionale di Genova," Genoa. Annual.

March 17-25. Int'l Novelty Gift Fair and World Travel Holiday Show. Ente Autonomo "Fiera Internazionale di Genova," Genoa. Annual.

October. BIBO—Int'l Wine and Liquor Show. Fiera Internazionale di Genova, Genoa. Annual.

November. TECNHOTEL—Int'l Show of Hotel and Travel Equip. Ente Autonomo Fiera Internazionale di Genova, Genoa. Annual.

November. TECNHOSPITAL—Int'l Show of Equip. for Hospitals, Clinics and Convalescent Institutions. Ente Autonomo Fiera Internazionale de Genova, Genoa. Annual.

Messina

August. Mediterranean Int'l Samples Fair. Ente Autonomo Fiera di Messina, Messina. Annual.

Milan

January. COMIS TRICOT—Int'l Knitwear Show. Centro Organizzazione Mostre Internazionali Specializzate. Piazzale Cadorna 2, Milan. Semiannual.

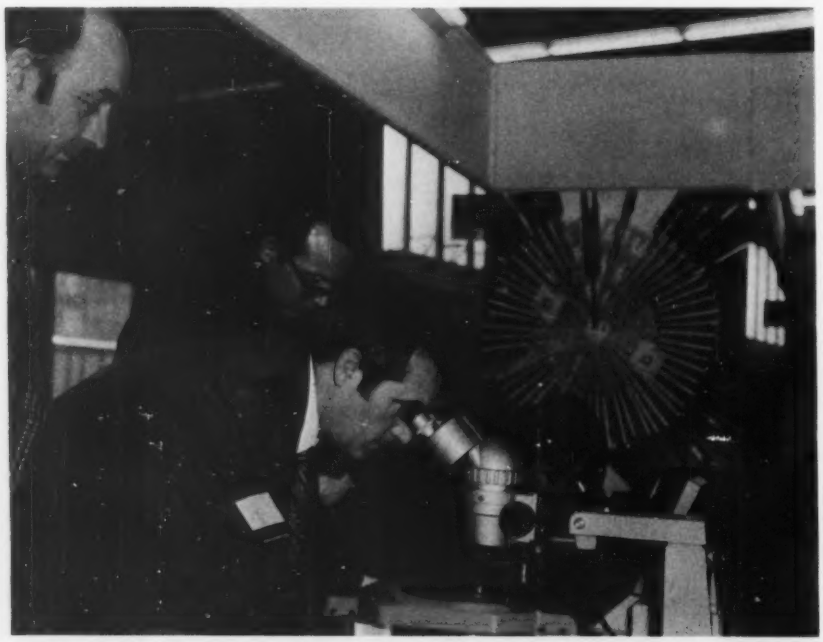
January. MIPEL—Int'l Leather Goods Show. Associazione Nazionale Industriali Manifatturieri delle Pelli e del Cuoio, Via G. Leopardi 14, Milan. Semiannual.

January-February. Int'l Toy Show. Salone Internazionale del Giocattolo, Via Cassiodoro 3, Milan. Annual.

January-February. CHI-BI-CAR — Int'l Knicknacks: Costume Jewelry, Stationery and Giftware Show. Salone della Chincaglieria, Bigiotteria, Cartoleria ed Articoli da Regalo, Via Biumi 14, Milan. Annual.

Feb. 16-20. Int'l Exbn. of Household Goods, Glassware, Ceramics, Hardware & Tools. MACEF Exhibitions & Trade Fairs International, Ltd. 943a Brighton Rd., Purley, Surrey, England.

March 1-7. Int'l Heating, Air Conditioning, Refrigeration, Plumbing and Sani-



USING THE PRODUCTS—*Fairs give prospective customers a chance to test the equipment. This was part of the U.S. exhibit at Electronica '72 in Frankfurt.*

tary Equip. Exbn. and Conv. Mostra-Convequo Risdaldamento, Condogimanuento, Refrigerazione, e Indrosanitaria. Via Fratelli Bressan 2, Milan. Annual.

March. MIAS—Int'l Sporting Goods Show. Mercato Internazionale dell' Articolo Sportivo, Viale Tedorico 19/2, Milan. Semiannual.

March. FLUID — Exbn. of Hydraulic, Pneumatic and Lubricating Apparatus. Via L. Manara 15, Milan. Biennial.

April 14-25. Int'l Samples Fair. Ente Autonomo Fiera di Milano, Via Danodossola, Milan. Annual.

May. MITAM—Int'l Exbn. of Textiles for Wearing Apparel and Furnishing Fabrics. Mercato Internazionale del Tessile per l'Abbigliamento — Arredamento, Galleria S. Babila 4/d, Milan. Semiannual.

May. INTERBIMALL—Int'l Show of Woodworkwing Machines. Salone Internazionale delle Maccine per la Lavoragione del legno, Corso Magenta 96, Milan. Biennial.

June. MIPEL—Int'l Leather Goods Show. Associazione Nazionale Industriali Manifatturieri delle Pelli e del Cuoio, Via G. Leopardi 14, Milan. Semiannual.

June-July. COMIS TRICOT—Int'l Knitwear Show. Organizazione Mostre Internazionali Specializzate. Piazzale Cadorna 2, Milan. Semiannual.

August-September. MICAM—Int'l Show of Shoes, Leather, Machines & Allied Eqpt. Salone Internazionale delle Calzature, Via Ippolito Nievo 33, Milan. Biennial.

Sept. 7-10. MACEF—Housewear, Glassware, Pottery, Hardware and Tool Show. Associazione MACEF, Via Salferino 25, Milan. Semiannual.

September. ANIE—Int'l Show of Electronic Components, Measuring Instruments & Accessories. Salone Internazionale Componenti, Istrumenti di Misura Elettronica ed Accessori, Via Luciano Manara 1, Milan. Annual.

September. Int'l Furnishing Exbn. Mostra Internazionale del' Arredamento, Villa Reale, Monza, Milan. Annual.

September. Exbn. and Conv. on Sport and Recreational Buildings, Installations and Eqpt. Centro Organizzazione Mostre Specializate all 'Aperto, Viale Corsica 43, Milan. Annual.

September. Int'l Furniture Exbn. Salone del Mobile Italiano, Corso Magenta 96 Milan. Annual.

September. MIAS—Int'l Sporting Goods Show. Mercato Internazionale dell' Articolo Sportivo, Viale Teodorico 19/2, Milan. Semiannual.

September. SMAU—Int'l Exbn. of Office Machines and Eqpt. Associazione Nazionale Commercio Macchine e Forniture per Ufficio, Piazza Belgioioso 1, Milan. Annual.

Oct. 8-14. IPACK-IMA Int'l Exbn. for Packing & Packaging, Mechanical Handling, Food Processing. Ipack-Ima, 62 Via Carlo Ravizza, 20149 Milan.

Oct. 8-15. BIMU—Int'l Machine Tools Exbn. Milan Fairgrounds. Annual.

October. SECURIT—Ind. Safety & Hygiene Eqpt. Show. COMIS, Piazzale Cadorna 2, Milan. Annual.

October. MAC—Industrial Chemical Processing Eqpt. Show. Mostra Internazionale di Apparecchiature Chimiche, Viale Tiziano 19, Milan. Annual.

October. Int'l Show of Photographic & Motion Picture Eqpt. ASSOTTICA, Via Brisa 3, Milan. Annual.

October. PULISAN—Exbn. & Conf. on Products and Techniques for Industrial Cleaning, Maintenance, Sanitation and Hygiene. BEPT, Via Paolo de Cannobio 2, Milan. Annual.

October-November. EXPO-CT—Int'l Exbn. of Commercial and Tourism Facilities and Eqpt. Associazione Nazionale Commercianti, Piazzo Belgioioso 1, Milan. Annual.

Nov. 15-19. ANTINQUINAMENTO — Int'l Air & Water Pollution Exbn. Milan. Annual.

November. MITAM—Int'l Exbn. of Textiles for Wearing Apparel and Furnishing Fabrics. Mercato Internazionale del Tessile per l'Abbigliamento Arredamento, Galleria S. Babila 4/d, Milan. Semiannual.

November. Int'l Exbn. of Winery and Bottling Eqpt. Centro Tecnico Italiano dell 'Imbottigliamento, Largo Toscanini 1, Milan. Annual.

November. Int'l Cycle and Motorcycle Exbn. Espozizione Internazionale del Ciclo e del Motociclo. Via Macchi 32, Milan. Annual.

Naples

Jan. 27-Feb. 4. EXPOSUDHOTEL—Hotel and Allied Tourist Industry Eqpt. Exbn. Ente Autonomo Mostra dell Oltremare, Naples. Annual.

Jan. 27-Feb. 4. SIVEL—Wine and Spirits Exbn. Ente Autonomo Mostra dell Oltremare, Naples. Annual.

Jan. 27-Feb. 4. CATERING — Catering Trades Show. Salonisud-Ente Autonomo Mostra D'Oltremare P. le V Tecchio 51/b, 80125 Naples.

Mar. 17-20. MOBILSUD—Furniture Show. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

May 30-June 3. SIR—Giftware Show. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

June 20-July 1. Housing Fair. Ente Autonomo, Mostra dell'Oltremare, Naples. Annual.

June 20—July 1. Exbn. of Technical Aids for the Development of Flaric, Hortic, Fruitgrowing and Agricultural Industries. AGROSUD, Salonisud Ente Autonomo, Mostra D'Oltremare — P.V. Tecchio 51/b 80125, Naples.

June-July. BIMBOSUD—Children's Toys, Furnishings, Clothing and Food Fair. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

September. MAREMODA — Beachwear Fashion Exbn. Ente Maremoda Capri, Via Santo Aspreno 13, Naples. Annual.

Sept. 30-Oct. 7. OPTICA—Int'l Optical Engineering and Photographic Instrumentation Exbn. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

Oct.-Nov. Exbn. of Water Sports and Pleasure Boating. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

Nov. 24-Dec. 2. SICAT—Stationery and Allied Products Show. Ente Autonomo Mostra dell 'Oltremare, Naples. Annual.

Padua

May. POLLUTION—Int'l Exbn. of Techniques and Equipment Against Pollution. Ente Autonomo Fiera de Padova, Via N. Tommaseo 95, Padua. Annual.

May 24-June 4. Int'l Samples Fair. Ente Autonomo Fiera di Padova, Via N. Tommaseo 59, Padua. Annual.

Oct. 3-7. Int'l Show of Material Handling and Warehousing Eqpt., Plant and Maintenance Eqpt., Containers. Ente Autonomo Fiera di Padova. Via N. Tommaseo 59, Padua. Annual.

Parma

September-October. Int'l Supermarket Exbn. Ente Autonomo Mostre Internazionale delle Conserve Alimentari, Parma. Annual.

Sept. 22-30. Int'l Exbn. of Preserved Food, Preserved Food Industries, Packaging and Industrial Eqpt. Ente Autonomo Mostre Internazionale dell Conserve Alimentari, Parma. Annual.

Reggio Calabria

February-March. Citrus Fair. Azienda Autonomo Fiera di Reggio Calabria, Reggio Calabria. Annual.

Rome

Mar. 14-Apr. 25. XIX Electronic, Nuclear, Television, Radio, and Motion Picture Exbn. Via Crescenzio 9, Rome. Annual.

Trieste

June. Int'l Samples Fair. Ente Autonomo Fiera di Trieste, Viale Ippodromo 18, Trieste. Annual.

June. Int'l Lumber Exbn. Ente Autonomo Fiera di Trieste, Viale Ippodromo 18, Trieste. Annual.

Turin

Feb. 16-19. SAMIA—Int'l Ready-Made Clothing Show, Salone Mercato Internazionale dell'Abbigliamento, Corso Massimo d'Azeglio 74, Turin. Semiannual.

September. SAMIA — Int'l Ready-Made Clothing Show. Salone Mercato dell' Abbigliamento, Corso Massimo d'Azeglio 74, Turin. Semiannual.

Sept. 22-Oct. 1. Int'l Technical Show. Salone Internazionale della Tecnica, Corso Massimo d'Azeglio 15, Turin.

Oct. 31-Nov. 11. Int'l Auto Show. Salone Internazionale dell'Automobili, Corso Galileo Ferrario 61, Turin. Annual.

Mar. 31-Apr. 8. Int'l Commercial Motor Show. Torino Esposizioni, Corso Massimo D'Azeglio 15, Turin. Semiannual.

Nov. 3-11. Int'l Commercial Motor Show. Torino Esposizioni, Corso Massimo D'Azeglio 15, Turin. Semiannual.

Verona

Feb. 4-11. SA MO TER—Int'l Earth Moving and Building Machinery Exbn. Ente Autonomo Fiera di Verona. Casella Portale 199, Verona. Annual.

Oct. 3-7. Int'l Agriculture, Livestock and Agricultural Machinery Fair. Ente Autonomo Fiera di Verona, Casella Portale 199, Verona. Annual.

September. Int'l Marble and Marble Working Machinery Exbn. Comune di S. Ambrogio, Valpolicella, Verona. Annual.

HAPPINESS IS AN ON-THE-SPOT SALE—*There were smiles all around when this Iranian businessman (left) signed up at a special showing of U.S. industrial equipment in Tehran.*

Dec. 6-10. Int'l Wine Fair. VINITALY Fairs & Exhibition Ltd., 21 Park Square East, Regents Park, London NW14LH.

Vicenza

Feb. 18-25. Int'l Ceramics Exbn., Ente Fiera di Vicenza, Contra Mure Porta NOVA 3, 36100 Vicenza.

Jamaica

Denbigh

August. 78th Denbigh Agricultural Show. 10 North Parade, P.O. Box 609, Kingston. Annual.

Japan

Nagoya

February 8-11. Middle of Japan Labor Saving Exbn. and Promotion Seminar, Aichi Trade Center. Chubu Umpan Kikaika Kyokai, Nittsu Bldg., 9-2, Hioki-dori, Nakamura-ku, Nagoya. Annual.

March 24-27. 16th Japan New Pack "Nagoya," Nagoya Fukiage Hall. Nihon Hoso Times, Co., Ltd., 4-4-5, Iidabashi, Chiyoda-ku, Tokyo.

April 5-10. 10th All Japan Best Machine Show and Metal Press Industry Show. Industrial Daily News, 1-11, Takaoka-cho, Higashi-ku, Nagoya.

Sept. 20-24. 11th Plastics Show, Fukiage Hall. Industrial Daily News, 1-11, Takaoka-cho, Higashi-ku, Nagoya.

Nov. 18-25. 21st Nagoya Wood-Working Machinery and Eqpt. Fair, Kinjo Pier. Chubu Mokko Kikai Kogyokai, 5-36, Iwai-dori, Naka-ku, Nagoya.

Osaka

February. The 13th World Good Design Exbn., International Fair Bldg. Osaka Foreign Trade Inst., Osaka Prefectural Govt., 58, Hoshizume-cho, Honmachi, Higashi-ku, Osaka.

March. Symposium and Exbn. on Electronic Computer's Accessories, Osaka Int'l Trade Fair, Minato Fair Grounds. Nippon Office Management Assn., Osaka Science Museum, 1-118, Utsubo, Nishi-ku, Osaka.

March 15-16. Osaka Toy Fair, Osaka Int'l Trade Fair, Minato Fair Grounds. Osaka Omono Gangu Kyodo Kumiai, 52, Kawaraya-cho, 1 Bancho, Minami-ku, Osaka.

April. The 7th World Sports Car Show and '73 Osaka Boat Show. Int'l Fair Grounds. Daily Sports, 2-1-39 Ikenohata, Taito-ku, Tokyo. Annual.

May 10-15. The 13th Excellent Machine Show. Osaka Int'l Trade Fair, Minato Fair Grounds. Industrial Daily News, 2-1, Kyobashi, Maeno-cho, Higashi-ku, Osaka.

June 28-July 2. '73 Int'l Knitting Art Exbn., Osaka Int'l Trade Fair, Minato Fair Grounds. Textile Journal, 2, 4-chome, Awaza-Kunidori, Nishi-ku, Osaka. Biennial.

July 8-12. The 12th Osaka Industrial & Engineering Materials Exbn., Osaka Int'l Trade Fair, Minato Fair Grounds. Industrial Daily News, 2-1 Kyobashi, Maemo-cho, Higashi-ku, Osaka.

July. Gas and Kerosene Appliances Show. Osaka Int'l Trade Fair, Minato Fair Grounds. Japan Industrial Assn. of Gas and Kerosene Appliances, c/o Netsukiki Kaikan, 1-13-7, Higashi-Ueno, Taito-ku, Tokyo. Annual.

October. The 47th Business Show. Int'l Fair Bldg., Nippon Office Management Assn., 1-118, Utsubo, Nishi-ku, Osaka. Annual.

Oct. 1-7. ★'73 Japan Electronics Show, Osaka Int'l Trade Fair, Minato Fair Grounds, Electronic Industries Assn. of Japan, Tokyo Shokokaigisho Bldg., 3-2-2, Marunouchi, Chiyoda-ku, Tokyo. Annual. (★U.S. Department of Commerce Catalog Show)

November 7-12. ★'73 Osaka Anti-Pollution Exbn. Osaka Int'l Trade Fair, Minato Grounds. Industrial Daily News, 2-1, Kyobashi Maeno-cho, Higashi-ku, Osaka.

November. 17th Osaka Packaging Exbn., Osaka Pack '73. Osaka Int'l Trade Fair, Minato Fair Grounds. Osaka Furitsu Boeki Center, Hashizume-cho, Uchi Honmachi, Higashi-ku, Osaka. Annual.

Tokyo

March 2-8. World Fashion Fair, Tokyo Int'l Trade Fair Grounds. Nihon Seni-Shimbun Co., Ltd., Semba Central Bldg., 27, 3-chome, Honmachi, Higashi-ku, Osaka.

March 2-7. The 13th Tokyo Industrial & Engineering Materials Exbn., and the 4th Modern Engineering Design. Tokyo Industrial Center, Ohtemachi Hall. Industrial Daily News, 1-8-10, Kudan-Kita, Chiyoda-ku, Tokyo.

March 8-18. Tokyo Int'l Anti-Pollution Show, Tokyo Int'l Trade Fair Grounds. Nihon Kogyo Shimbun Co., Ltd. 1-7-2 Ohtemachi, Chiyoda-ku, Tokyo.

March 16-19. ★Japan Graphic Arts Show, Tokyo Int'l Trade Fair Grounds. Printing and Publishing Research Inst., 3-21, Nishiki-cho, Kanda, Chiyoda-ku, Tokyo.

March 21-25. 12th Tokyo Boat Show, Tokyo Int'l Trade Fair Grounds. Japan Boating Industry Assn., 2-5-1, Ginza, Chuo-ku, Tokyo.

March 30-April 3. The 6th Tokyo Int'l Automatic Control Exbn.; and the 4th Automatic & Labor Saving Machines Exbn., Tokyo Int'l Trade Fair Grounds. Industrial Daily News, 1-8-10, Kudan-Kita, Chiyoda-ku, Tokyo.

March 30-April 3. Japan Int'l Welding Show, Tokyo Int'l Trade Fair Grounds. Japan Welding Engineering Society, Sanyo Inc., 1-10-7, Hammamatsu-cho, Minato-ku, Tokyo.

April. American Food Festival, U.S. Trade Center. Tameike Tokyu Bldg., 1-1-14, Akasaka, Minato-ku, Tokyo.

April. '73 Camping Car & Camp Show. Japan Auto-Camp Assn., New Ueno Bldg., 1-24, Yotsuya, Shinjuku-ku, Tokyo.

April 20-May 7. 10th Tokyo Int'l Trade Fair. Tokyo Int'l Trade Fair Comm., 2, 4-16 Harumi, Chuo-ku, Tokyo. Alternates annually between Osaka and Tokyo.

May. The 12th Metal Finishing M.E.T. Show, Tokyo Industrial Center, Ohtemachi Hall. Metal Finishing Society of Japan, Kyodo Bldg. Annual.

May 31-June 3. 14th Screw Machine Fair and 4th Fastener Show, Tokyo Int'l Fair Grounds. Metal Industrial News, 3-23-6, Nishi-Shimbashi, Minato-ku, Tokyo. Annual.

May. Communication Components & Associated Products Show, Tokyo Industrial Center, Ohtemachi Hall. TSUSHIN Kikai Kogyokai, 1-7-2, Ohtemachi, Chiyoda-ku. Annual.

May. The 3rd Hospital Show. Tokyo Int'l Trade Fair Grounds. Nippon Office Management Assn., Seikyo Kaikan, 4-1-13, Sendagaya, Shibuya-ku, Tokyo. Annual.

May. The 46th Business Show, Tokyo Int'l Trade Fair Grounds. Nippon Office Management Assn., Seikyo Kaikan, 4-1-13, Sendagaya, Shibuya-ku, Tokyo. Annual.

June 1-5. '73 Auto Accessory Show. Tokyo Int'l Trade Fair Grounds. Japan Auto-Accessories Wholesalers Assn., 25, Sakuragawa-cho, Nishikubo, Minato-ku, Tokyo. Annual.

June 11-16. '73 Mechanical Handling Exbn. Int'l, Tokyo Int'l Trade Fair Grounds. Japan Management Assn., Kyoritsu Bldg., 3-1-22, Shiba Koen, Minato-ku, Tokyo. Annual.

August 1-4. Int'l Restaurant Eqpt. Fair/Japan '73. Harumi Exbn. Center, Tokyo. Industrial & Scientific Conference Management, Inc., 222 West Adams St., Chicago, Ill. 60606.

Sept. 7-11. Japan Food Industry Exbn., Tokyo Int'l Trade Fair Grounds. Japan Food Machinery Manufacturers Assn., Tobako-senta Bldg., 2-16-2, Nishishinbashi, Minato-ku, Tokyo. Annual.

Sept. 16-22. '73 Fluid Power Int'l Exbn., Tokyo Int'l Trade Fair Grounds. Japan Oil Hydraulics Assn., 3-5-8, Shiba-Koen, Minato-ku, Tokyo.

Sept. 21-26. Low-cost Automation Machine Fair and '73 Industrial Robot Show, Tokyo Industrial Trade Fair Grounds. Nihon Kogyo Shimbun Co., Ltd., 1-7-2, Ohtemachi, Chiyoda-ku, Tokyo. Annual.

October-November. 20th Tokyo Motor Show. Tokyo Int'l Trade Fair Grounds.

Japan Motor Industrial Fed., 1-6-1, Ohtemachi, Chiyoda-ku, Tokyo. Annual.

Oct. 4-9. '73 Heating, Air-Conditioning and Sanitary Exbn., Tokyo Int'l Fair Grounds. Japan Management Assn., Kyoritsu Bldg., 3-1-22, Shiba-Koen, Minato-ku, Tokyo. Annual.

Oct. 5-11. ★Japan Int'l Aerospace Show, Iruma Airport, Saitama Prefecture. Japan Int'l Aerospace Show Council, c/o Asahi Shimbun, Chiyoda-ku, Tokyo (★U.S. Department of Commerce Catalog Show).

Oct. 19-24. The 8th Tokyo Int'l Metal-Working Machines Exbn., Tokyo Int'l Trade Fair Grounds. Industrial Daily News, 1-8-10, Kudan Kita, Chiyoda, Tokyo. Annual.

Nov. 8-13. The 7th Audio-Visual Industrial Training Eqpt. Show, Tokyo Industrial Center, Ohtemachi Hall. Industrial Daily News, 1-8-10, Kudan-Kita, Chiyoda-ku, Tokyo. Annual.

November. 3rd Exbn. of Electronic Computers, Tokyo Int'l Trade Fair Grounds. Nippon Management Assn., Seikyokaikan, 4-1-13, Sendagaya, Shibuya-ku, Tokyo. Annual.

Kenya

Mombasa

Aug. 31-Sept. 2 (tentative). Agricultural Society of Kenya, Mombasa Exbn. The Secretary, Agricultural Society of Kenya, P.O. Box 30176, Nairobi (Tel: Nairobi 66255).

Nairobi

Oct. 2-6 (tentative). Agricultural Society of Kenya's Nairobi Exhibition. Annual. The Secretary, Agricultural Society of Kenya, P.O. Box 30176, Nairobi (Tel: Nairobi 66255).

Lebanon

Beirut

May 10-16. Engineering Materials and Eqpt. Exbn. Engineering Alumni Chapter and Student Society, American Univ. of Beirut, P.O.B. 236, Beirut. Annual.

May. Medical Symposium and Exbn. of Medical products, appliances and equipment. Dr. Amal Kurban, Dept. of Internal Medicine, American Univ. of Beirut, P.O.B. 236, Beirut. Annual.

May. Pharmacy Seminar and Exh. Mainly pharmaceutical products. Dr. Amin Haddad, Director, School of Pharmacy, American Univ. of Beirut, P.O.B. 236, Beirut. Annual.

May. Ideal Home Exh. Strand Exhibit and Export Center, Strand Bldg., Hamra St., Beirut. Semiannual.

May or August. CHEM-EX—Chemical Industries and Scientific Eqpt. Exbn., Assn. of Chemists in Lebanon and Chemical Students, American Univ. of Beirut, P.O.B. 236, Beirut. Amal Haddad, Industry Inst., P.O.B. 4324, Beirut. Annual.

November. Ideal Home Exh. Strand Exhibit and Export Center, Strand Bldg., Hamra St., Beirut. Semiannual.

Libya

Tripoli

March 1-20. Tripoli Int'l Fair. Ahmed Al-Murtadi, Director General, General Authority for Fairs, Sharia Omar Al-Mikhtar, Tripoli, Libyan Arab Republic. Annual.

Luxembourg

Luxembourg

May-June. Int'l Trade Fair. 60 Ave. Victor-Hugo, Luxembourg-Lumpertsberg. Annual.

Malta

Naxxar

July 1-15. 17th Malta Int'l Trade Fair. Malta Trade Fair Corp., Naxxar. Annual.

FACE-TO-FACE CONTACT—*U.S. firms are guaranteed an attentive audience when they take their products to trade fairs around the world.*

Morocco

Casablanca

April 26-May 13. Casablanca Int'l Fair. Commissariat General de la Foire Internationale de Casablanca, Palais de la Foire, Casablanca. Attn: Ibnou Taleb. Biennial.

Mozambique

Lourenco Marques

May 26-June 10. Int'l Trade Fair of Lourenco Marques (FACIM), P.O. Box 1761, Lourenco Marques. Annual.

Netherlands

Amsterdam

Feb. 8-18. Int'l Motor Show. Nederlandsche Vereeniging, De Rijiwiel-en Automobiel-Industrie, RAI, Europaplein 8, Amsterdam.

Feb. 24-Mar. 4. Int'l Caravan and Accessories Exbn. RAI Gebouw N.V., Europaplein 8, Amsterdam.

May 1-4. INTERCLEAN—Int'l Trade Fair for Industrial Maintenance and Cleaning. RAI Gebouw N.V., Europaplein 8, Amsterdam.

November. EUROPORT '73—Marine Eqpt. Exbn., Amsterdam. Europort Tentoonstellingen, Hoogstraat 100, Rotterdam.

Rotterdam

Mar. 20-24. NEDEX—Int'l Exbn. of Transport, Import and Export Services. Nedex Vakbeurs, N.V., Oostzeedijk 244, Rotterdam.

The Hague

Apr. 9-12. NEBATO—Int'l Bakery Exbn., The Hague, Laan van N.O. Indie 138, 's Gravenhage.

June 4-8. Instrumentation for Ultrasonics in Medicine Exbn. and Conf. Secretariat, c/o Holland Organising Centre, 16 Lange Voorhout, The Hague.

Utrecht

Feb. 27-Mar. 3. Heating, Air Conditioning and Refrigeration Exbn. Royal Netherlands Industries Fair, Utrecht.

April 11-17. MILIEU — Environmental Control Eqpt. Exbn. Royal Netherlands Industries Fair, Utrecht.

May 3-8. MEDICA. Int'l Hospital Eqpt. Exbn. Royal Netherlands Industries Fair, Utrecht.

May 29-June 2. VICTAM—Int'l Feed Milling Machinery Exbn. 'Victam', General Secretary, Mr. F. J. E. Verkvylen, P.O. Box 360, Venlo.

Oct. 17-23. Transportation Eqpt. Exbn. Royal Netherlands Industries Fair, Utrecht.

Nov. 26-29. SLAVAKTO—Int'l Meat Industry Exbn. Slavakto, P.O. Box 420, Nijmegen.

Nicaragua

Managua

October. NICAFER—73. Agricultural and light industrial machinery and eqpt. National Fairs Committee, Ministry of Economy, Managua. Biennial.

Norway

Oslo

Mar. 16-26. Int'l Boat and Motor Show. Norwegian Boatbuilders' Assn., Stortingsgaten 12, Oslo 1.

May 9-15. ★NOR-SHIPPING '73. Norwegian Trade Fair, Box 130 Skoyen, Oslo 2.

Peru

Lima

Nov. 12-25. 8th Pacific Int'l Trade Fair, Apartado 4900, Lima.

Poland

Poznan

June 10-19. ★42nd Int'l Technical Fair. Industrial eqpt. for all industries.

Sept. 23-30. TAKON—43rd Int'l Consumer Goods Fair. General consumer goods.

Sept. 23-30. TAROPA-73 — Specialized Packaging Exbn., within the framework of the Int'l Consumer Goods Fair. Packaging machinery and materials.

Use this address for all fairs listed—Management of the Poznan International Fair, 14 Glogowska St., Poznan, Poland.

Portugal

Lisbon

June 9-23. Int'l Fair. Annual.

Romania

Bucharest

May 6-15. Exbn. of Forestry Machinery & Eqpt. Wood-Processing, Paper and Furniture Industries; Transportation.

June 24-July 3. Exbn. of Tourism; Hunting & Fishing Eqpt. and Accessories.

Oct. 14-23. Exbn. of Agricultural Eqpt.; Food & Packaging Industries.

Singapore

Singapore

Apr. 9-14. ★USAQUIP '73, Shangri-La Hotel, under the auspices of the U.S. Regional Trade Development Center. Featured product categories: Business, EDP, Reprographic Eqpt., Construction Eqpt., Building Products, Instrumentation, Logging, Sawmill Eqpt.

Somalia

Mogadiscio

Oct. 15-30. Mogadiscio Int'l Trade Fair. Management: Director General, Chamber of Commerce, Mogadiscio, Somali Democratic Republic.

Spain

Albacete

Sept. 7-17. 8th Nat'l Knife Exbn. and Knife Manufacturing Machinery. Calle Mayor s/n, Albacete. Annual.

Barcelona

Feb. 3-7. 13th Nat'l Wearing Apparel Salon. Avda. Maria-Cristina s/n, Parque de Montjuich. 1st Edition: fall and winter fashions, Barcelona (4). Semiannual.

Feb. 3-12. 11th Int'l Nautical Salon. Avda. Maria-Cristina s/n, Parque de Montjuich, Barcelona (4). Annual. (*)

Apr. 5-15. 6th Int'l Automobile Salon. Avda. Maria Cristina s/n, Parque de Montjuich, Barcelona (4). Annual. (*)

May 2-12. FOIM 41st Official and Int'l General Trade Fair. Avda. Maria Cristina s/n, Parque de Montjuich, Barcelona (4). Annual. (*)

Oct. 13-21. SONIMAG '11—11th Image, Sound and Electronic Salon. Avda. Maria Cristina s/n, Parque de Montjuich, Barcelona (4). Annual.

Nov. 14-25. HOGARHOTEL 13, 13th Nat'l Home, Decoration and Gastronomy Salon and Int'l Hotel Equipment Exbn. Avda. Maria Cristina s/n, Barcelona (4). Annual. (*)

Bilbao

Mar. 13-21. 5th Technical Fair of the Electrical Industry, Materials Handling and Automation. Tercio de Begona, 2 P.O. Box 468, Bilbao. (*)

May 16-20. Surgical-Medical Salon. Tercio de Begona 2, Bilbao. Annual.

June 30-July 9. 8th Int'l General Trade Fair. Tercio de Begona 2, Bilbao. Annual. (*)

Nov. 12-18. EXPOQUIMIA '73—Technical Fair of Applied Chemistry. Tercio de Begona 2, Bilbao.

El Ferrol de Caudillo

July 17-31. 11th Nat'l Naval Industries Fair and NW General Trade Fair. Frutos Saavedra 158, El Ferrol del Caudillo. Annual.

Elda

March 13-17. FICIA. 12th Int'l Shoe and Related Industries Fair. 1st edition: fall-winter fashions. Avda. Chapi s/n, Elda, Alicante. Semiannual. (*)

Sept. 11-15. FICIA. 12th Int'l Shoe and Related Industries Fair. 2nd edition: spring-summer fashions. Avda. Chapi s/n, Elda, Alicante. Semiannual. (*)

Gijon

Aug. 4-19. 17th General Trade Fair of Asturias. Instituto 17, Gijon. Annual.

Canary Islands

Feb. 1-15. Spanish Atlantic General Trade Fair. Las Palmas de Gran Canaria. Annual.

Lerida

Sept. 21-30. 12th Nat'l Agricultural and Fruit Fair of Saint Michael. Campose Eliseos s/n, Lerida. Annual.

Madrid

May 10-20. 10th Nat'l Electrification Salon. Barquillo 17, Madrid (4). Annual.

May 12-23. FICOP — Construction and Public Works Fair. Avd. de Portugal, s/n, Madrid.

Oct. 10-21. Used Automobile Market. Avda. de Portugal s/n, Madrid (11). Annual.

Nov. 9-18. SIMO—13th Int'l Monographic General Trade Fair of Office Equipment and Data Processing. Conde Valle de Suchill 8, Madrid (15). Annual. (*)

Murcia

Oct. 20-30. 12th Int'l Canning and Food Fair. Avda. Jose Antonio 11, Murcia. Annual. (*)

Palma de Mallorca

March 16-25. 3rd Nat'l Fair of Craftsmanship and Tourism. EXCMA. Ayuntamiento. Palma de Mallorca. Annual.

Seville

April 25-May 6. 13th Iberoamerican General Trade Fair, Pabellon del Peru, Jardines de San Telmo, Seville. Annual. (*)

Valencia

Jan. 27-Feb. 2. TEXTILHOGAR '73—4th Monographic Fair of Textile Goods for the Home. P.O. Box 476, Valencia. Annual.

Feb. 17-25. 12th Toy and Children's Apparel Fair, P.O. Box 476, Valencia. Annual.

Feb. 17-25. DIDACTEC '73—Teaching Materials and Educational Techniques Fair. P.O. Box 476, Valencia.

March 31-April 9. 9th Ceramics, Glass and Decoration Elements Monographic Fair. P.O. Box 476, Valencia. Annual.

May 6-16. 51st Int'l General Trade Fair. P.O. Box 476, Valencia. Annual. (*)

Sept. 13-16. 7th Spanish Children's Fashion Show. P.O. Box 476, Valencia. Annual.

Oct. 13-22. 10th Spanish Furniture Fair. P.O. Box 210, Valencia. Annual.

Oct. 13-22. 10th Int'l Wood Working Machinery Salon. P.O. Box 210, Valencia. Annual. (*)

Valladolid

Sept. 11-23. 1st Nat'l Trade Fair of Castille and Leon. Avda. Ramon Pradera s/n, Valladolid.

Vigo

Sept. 12-19. World Fishing Exbn. (*)

Zaragoza

April 6-15. FIMA '73—7th Int'l Farm Machinery Fair. Gran Via s/n, Zaragoza. Annual. (*)

Oct. 3-14. 33rd Official and Nat'l General Trade Fair. Gran Via s/n, Zaragoza. Annual.

Note: Asterisk (*) indicates that fair is open to direct participation by foreign companies; participation in all others is only through local agents of foreign companies.

Swaziland

Mbabane

Sept. 5-9. Swaziland Trade Fair. Management Address: Swaziland Trade Fair, Attn.: Mrs. A. Milane, P.O. Box 462, Mbabane. Tel.: Mbabane 2218. Annual.

Sweden

Gothenburg

March 13-18. MOTORTECHNICS—Int'l Industrial Fair for Motorcar & Car Repair Shop Equip. Svenska Massan Stiftelse, S-412 51 Gothenburg.

May 11-20. Int'l Swedish Trade Fair. Svenksa Massan Stiftelse, S-412 51 Gothenburg.

Oct. 11-17. SCANPACK—4th Int'l Packaging Exbn. Svenska Massan, Skanegatan 26, 5-41251 Gothenburg.

Oct. 29-Nov. 2. ELFACK—Int'l Electro-Technical Trade Fair. Svenska Massan Stiftelse, S-412 51 Gothenburg.

Nov. 19-23. SCANMILJO—Int'l Exbn. of Technics and Environmental Control. Svenska Massan Stiftelse, S-412 51 Gothenburg.

Jonkoping

June. ELMIA 73—Int'l Exbn. for Forestry and Contractors' Machinery. ELMIA AB, Box 6066, S-550 06 Jonkoping 6.

September. Int'l Air Pollution Control and Noise Abatement Exbn. ELMIA AB, Box 6066, S-550 06 Jonkoping 6.

Malmo

May. Int'l Furniture Fair. Malmo Masshallar, Box 19015, 200 73 Malmo 19.

Aug. 17-26. Int'l Trade Fair Stiftelsen Skanemassan. Stadiongatan 25, Box 19015, S-200 Malmo 19.

Stockholm

March 1-4. Int'l Motorcycle Show. Picko Troberg International A.B., Artillerigatan 46, S-11445 Stockholm.

March 22-April 1. Int'l Boat Show. Swedish Boating Assn. A/B St. Eriks Massan, S-106 80 Stockholm.

May 8-11. HOSPITAL 73—Int'l Hospital Exbn. AB St. Eriks-Massan, Storangsvagen 18, Stockholm.

May 29-June 5. ENTREX—Exbn. of Building & Contractors' Machinery. AB St. Eriks-Massan, S-106-80 Stockholm.

July 1-7. Int'l Congress & Exbn. of Biochemistry. AB St. Eriks-Massan, S-106-80 Stockholm.

Aug. 31-Sept. 9. 31st St. Erik's International Trade Fair. AB St. Eriks-Massan, S-106-80 Stockholm.

Sept. 27-Oct. 4. Int'l Office Equip. Exbn. Overseas Trade Equip. Exbn. AB St. Eriks-Massan, S-106-80 Stockholm.

Oct. 18-24. Stockholm Technical Fair. AB St. Eriks-Massan, S-10680, Stockholm.

Switzerland

Basel

Feb. 22-March 4. Arts and Antiques Fair. Schweizer Mustermesse Basel, 4000 Basel 21. Annual.

March 6-10. INEL—Int'l Exbn. of Industrial Electronics. Exhibition Management, Swiss Industries Fair, 4000 Basel 21.

March 6-10. ★MEDEX—Int'l Exbn. for Medical Electronics & Bio-Engineering. Sekretarial MEDEX, CH-4000 Basel 21.

April 7-17. Swiss Industries Fair. Swiss Embassy, 2900 Cathedral Ave., N.W., Washington, D.C. 20008.

May 23-25. Non-Woven Fabrics & Disposable Soft Goods Industries Exbn. Mack-Brooks Exhibition Ltd., 7 London Road, St. Albans, Herts.

May 25-June 6. 2nd Exbn. for Machine Tools and Tools. Sekretariat FAWEM, Postfach, 4021 Basel.

Sept. 12-16. Int'l Knitting Machinery Exbn. Mack-Brooks Exhibitions Ltd., 7 London Rd., St. Albans, Herts.

Oct. 9-14 PAEDAGOGICA—Educational Materials Fair. Swiss Industries Fair, 4000 Basel 21.

Nov. 16-22. IGEHO—Int'l Catering & Hotel Exbn. Swiss Industries Fair, 4000 Basel 21.

Bern

April 28-May 8. BEA—Commercial Agricultural, Industrial and Trade Exbn. BEA Sekretariat, Postfach 1009, 3001 Bern.

HERE WE ARE—*Businessmen have no trouble finding the U.S. exhibit in shows where the Department of Commerce is a direct participant. This display was part of a London showing of instruments, electronics and automation products last year.*

June 13-20. Building and Architecture 73. BEA Sekretariat, Postfach 1009, 3001 Bern.

Sept. 24-28. ★SAMA '73—Exbn. for Assembly, Miniaturization and Automation.

Geneva

March 15-25. Int'l Motor Show. Salon International de l'Automobile, 16 Quai de l'Ecole de Medecine, Case Postale 65, 1211 Geneva 4.

Lausanne

Feb. 15-20. Swiss Agricultural Machinery Fair. Landmaschinen - Verband, Bundesplatz 4, 3000 Bern.

March 3-11. Int'l Exbn. of Tourism, Sports, Camping & Caravanning. Salon Int'l du Tourisme et des Sports, 2 Ave. Agassiz, 1001 Lausanne.

April 6-9. Int'l Symposium and Exbn. on Biological Medicine. Comptoir Suisse, Palais de Beaulieu, 1002 Lausanne.

Montreaux

May 18-25. Int'l Exbn. of Television Equip. & Symposium. International T.V. Symposium & Technical Exbn., Case Postale 97, Montreux 1820.

Zurich

Jan. 25-31. MICRO-TECHNICS—Int'l Exbn. for High Precision Techniques, Measurement & Control. G. Beach Ltd., 6 Warwick Mans., Lower Richmond Rd., London SW 15.

Feb. 11-14. Mens Fashion Week. Zuspa, Thurgauerstrasse 7, 8050 Zurich. Annual.

Feb. 17-25. Swiss Boat Show. Zuspa, Thurgauerstrasse 7, 8050 Zurich. Annual.

March 4-5. Int'l Shoe Samples Exbn. Zuspa, Thurgauerstrasse 7, 8050 Zurich. Semiannual.

March 16-25. PHOTEXPO '73—Photo and Cinema Exbn. Suspa, Thurgauerstrasse 7, 8050 Zurich.

April 1-3. IMODA—Int'l Ladies & Children's Fashion Fair. 2, Av. Pictet-de-Rochemont, 1207 Geneva. Semiannual.

April 8-11. Swiss Buyer's Week for Winter Sporting Articles. Secretariat, 2, Av. Pictet-de-Rochemont, 12-7 Geneva.

May 4-10. GRAPHEX '73—Graphic Art Exbn. Zuspa, Thurgauerstrasse 7, 8050 Zurich.

Aug. 29-Sept. 9. FERA—Swiss Radio and Television Exbn. Zuspa, Thurgauerstrasse 7, 8050 Zurich.

Sept. 2-3. Int'l Shoe Samples Exbn. Zuspa. Thurgauerstrasse 7, 8050 Zurich.

Oct. 14-16. IMODA—Int'l Ladies & Children's Fashion Fair. 2, Av. Pictet-de-Rochemont, 1207 Geneva.

Syria

Damascus

September. Damascus Int'l Trade Fair. 67 Blvd. de Baghdad. Annual.

Tanzania

Dar es Salaam

July 1-7. Saba Saba Int'l Trade Fair. Principal Secretary, Ministry of Commerce and Industries, P.O. Box 234. Annual.

Tunisia

Tunis

May 25-June 10. Tunis Int'l Fair. Tunis Chamber of Commerce. Biennial.

Turkey

Izmir

Aug. 20-Sept. 20. ★Izmir Int'l Trade Fair. Directorate, Izmir Fairs and Tourism. Annual.

United Kingdom

Brighton

Jan. 27-31. British Int'l Toy Fair. British Toy Fairs (Int'l) Ltd., Regent House, 89 Kingsway, London, WC2B 6RS.

June 19-21. Int'l Microwave Conference and Exbn. Gordon Saville, Microwave Int'l, 21 Victoria Rd., Surbiton Surrey.

Oct. 16-18. INTERNEPCON/UK — Kiver Communications Ltd., 149-155 Ewell Rd., Surbiton, Surrey.

Eastbourne

April 30-May 4. Int'l Health Exbn., Royal Society of Health, 90 Buckingham Palace Rd., London, SW1W OSX.

Harrogate

March 27-29. POWTECH 73—Int'l Powder Technology and Bulk Solids Exbn., The Lawson Organisation, Green Dragon House, High St., Croydon, CR9 2UH.

London

March 12-16. Int'l Reprographic Exbn. Industrial Exhibitions Ltd., 9 Argel St., London W1V 2HA.

March 20-22. Temperature Measurement and Control Exbn. and Conference. Trident Conferences and Exhibitions Ltd., 60 George St., Richmond, Surrey.

March. MEDEA 73—Int'l Medical Engineering and Automation Exbn. Industrial Exhibitions Ltd., 9 Argel St., London W1V 2HA.

April 9-13. LABEX-Int'l 73—Laboratory Apparatus and Materials Exbn. U.T.P. Exhibitions Ltd., 36-37 Furnival St., London E.C.4.

May 3-8. INTERLITH — Off-Set Litho Exbn. Brintex Exhibitions Ltd., 178-202 Great Portland St., London, W1N 6NH.

May 22-25. Int'l Micrographic Exbn. and Congress. Business Equip. Trade Assn., 109 Kingsway, London, WC2B 6PV.

May 22-25. Int'l Electronic Component Show. Industrial Exhibitions Ltd., 9 Argel St., London W1V 2HA.

June 5-8. IMAS/IMEX—Int'l Marine and Shipping Exbn. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NH.

June 5-8. PIPEX—Int'l Pipes, Valves and Pipeline Engineering Exbn. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NH.

June 5-8. ENPOCON—Int'l Environmental Pollution Control Exbn. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NH.

June 5-8. Effluent and Water Treatment Exbn and Conv. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NH.

June 20-29. INTERPLAS — Int'l Plastics Exbn. ITF-Illiffe Exhibitions Ltd., Commonwealth House, New Oxford St., London WC1A 1PB.

July 17-20. INTER NAVEX—Int'l Audio Visual Aids Conference and Exbn. Nat'l Committee for Audio-Visual Aids in Education, 33 Queen Anne St., London, W1M OAL.

July 17-20. INTERLITH—Int'l Offset-Litho Exbn. Brintex Exhibitions Ltd., 178-202 Great Portland St., London W1N 6NH.

Sept. 10-14. Int'l Reclamation and Disposal Exbn. Maclaren (Exhibitions) Ltd., Davies House, High St., Croydon, CR9 1LB.

Sept. 25-28. Dust Control and Air Cleaning Exbn. and Conference. Technology Exhibitions Ltd., 1 Katharine St., Croydon, CR9 1LB.

Sept. 25-28. FILTECH—Int'l Filtration and Separation Exbn. Filtech Exhibitions Ltd., 1 Katharine St., Croydon CR9 1LB.

September. Int'l Freight Container and Container Handling Exbn. Freight Container Exbn. Joint Committee, 21-24 Grosvenor Pl., London, SW1.

Oct. 23-26. INSPEX—Engineering Inspection and Quality Control Exbn. Business Conferences and Exhibitions Ltd., Mercury House, Waterloo Rd., London, SE1.

USSR

Kiev

May 17-28. SLUZHBA BYTA '73—Modern equip. for repair and service establishments.

Leningrad

June 14-24. INTERBUMASH '73—Equip., devices and means of automation for the pulp and paper industry.

Moscow

Feb. 15-25. MICROBIOPROM '73—Processes and equip. for the microbiology industry.

April 4-15. ELECTRONMASH '73—Technological and measuring equip. for electron integrated production and control.

May 23-June 6. ★AUTOSERVICE '73—Organization of technical service and repair of cars and equip. for these purposes.

Sept. 7-21. INTERLITMASH '73—Technology, materials and equip. for foundry production.

Sept. 5-19. LESDREVMASH '73—Machines, equip. and instruments for timber and woodworking industry.

Nov. 22-Dec. 2. School Equipment '73. Textbooks, teaching manuals, audiovisual equip., schoolroom furniture, special education equip., radio apparatus and television equip. and physical education equip.

For all USSR fairs listed, address: Foreign Exhibitions in the USSR, Sokolnicheski Val, 1-A, Moscow, 107 232.

Yugoslavia

Belgrade

For information on participation in any Belgrade fair, contact: Belgrade Int'l Trade Fair, P.O.B. 408, 11000 Belgrade.

March 12-18. VII Int'l Commercial Exbn. of Textiles and Footwear (no public admitted).

April 21-29. XII Int'l Automobile Show.

May 12-20. XVII Int'l Technical Fair; VIII Int'l Fair of Chemical Industry; Int'l Fair of the Building Industry '73; 3rd Int'l Exbn. of the Foundry Trade.

Oct. 8-14. XIV Int'l Clothing Fair "Fashions in the World."

Oct. 29-Nov. 4. IV Int'l Cine-Photo Exbn. and IV Int'l Exbn. of Advanced Educational Means and Equip., and XVIII Int'l Book Fair.

Nov. 11-19. XI Int'l Fair of Furniture, Accessories and Interior Decoration and IV Yugoslav Furniture Show.

Leskovac

June 10-17. Int'l Textile & Textile Machinery Fair. Sajam Tekstila 1 Tekstilnih Masina U1. Koste, Stamenkovica 4, Leskovac.

Ljubljana

Oct. 9-13. ★Ljubljana Electronics Fair.

Novi Sad

May 11-20. Int'l Agriculture Fair. Annual.

June 12-20. Int'l Fair of Hunting, Fishing & Sports Equip.

Zagreb

For Zagreb fairs listed, the address is: Exhibitions, Consultants Ltd., 11 Manchester Square, London W1M 5AB.

Feb. 20-24. Int'l Leather and Footwear Week.

March 12-17. INTERGRAFIKA—Int'l Exbn. for Paper and Printing.

April 9-15. Int'l Spring Fair.

May 7-12. INTERLABOR — Laboratory Equip.

May 7-12. ★7th Int'l Exbn. of Medicine and Medical Aids.

June 4-9. Int'l Exbn. of Heating, Ventilating, and Air Conditioning Equip.

June 4-9. URBANEX—Public Works Exbn.

Sept. 6-16. Int'l Autumn Fair.

Oct. 8-13. INTERBIRO—Business Equip. & Data Processing Exbn.

Oct. 29-Nov. 3. Int'l Machine Tool Exbn.

Nov. 19-24. SPORTEX—Sporting & Camping Equip.

Nov. 19-24. TU-EX—Tourist, Hotel & Catering Equip.

Nov. 19-24. TERNAUTIKA—Int'l Nautical Exbn.

Zaire

Kinshasa

June 24-July 6. Third Kinshasa Int'l Fair. Commissaire General, Foire Internationale De Kinshasa, BP 1397, Kinshasa 1, Rep. of Zaire.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $5 from the Department of Commerce, BIC-266, Washington, D.C. 20230, or from any Commerce Field Office.

INDIA—Landowner seeks joint venture with U.S. firm to **develop property for industrial purposes:** 4.32 acres, electricity available, roads laid out. Copies of letter containing details for interested investors available from Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. P-73046.

2024—KUWAIT—Firm seeks equipment and management know-how on licensing basis to establish an **ice cream plant using fresh milk.** Is one of the largest producers of milk and dairy products in the Middle East. Dr. Abdulrahman Salman, Kuwait Dairy Co., P.O. Box 3240, Kuwait. WTDR. P-73032.

2300 — TUNISIA — Industrialist seeks joint venture partner for production of **women's, men's and children's apparel** for export to EEC. Approximately 1600 square meters in industrial zone could be available for factory site. Project would receive incentives established by 1972 export industries law. Principal is former manager of specialized production for Tunisian state-owned textile monopoly. Mme. Ben Abdullah, Societe Fatma Ben Abdullah, 112 rue de Yugoslavie, Tunis. P-73035.

2519—JAMAICA—Joint venture sought for manufacturing **molded polyurethane products for the furniture industry.** Firm has considerable management experience in woodworking and furniture business. U.S. partner would supply all necessary technical expertise to select and purchase machinery, set up plant and train factory workers. Equity division negotiable. Mrs. Saundra Davis, Development Finance Ltd., 18 Melmac Ave., Kingston 5. WTDR. P-73033.

2544—GERMANY — License sought for manufacturing **sliding, air cushion-controlled, motor-operated metal storage racks for offices and factories.** Mauser Werke GmbH, 3591 Waldeck-Ost, Near Kassel. P-73034.

2800—BANGLADESH—Government corporation seeks technical assistance in developing several projects. Include **large petrochemical complex, facility to produce building blocks from gypsum, a pesticide plant and the manufacture of dye.** Opportunity for joint venture. M. B. Zaman, Senior Development Officer, Planning Div., Bangledesh Fertilizer, Chemical and Pharmaceutical Corp. (BFCPC), Dacca. Additional details available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230. P-73036.

2834—ECUADOR—Importer of **veterinary biological and pharmaceutical preparations** seeks to manufacture through joint venture. Needs technical and financial assistance, machinery and equipment. Reportedly importation of these products will be banned sometime in 1973. Nestor Cubillos C., Admin. Manager, El Campo S.A., P.O. Box 5524, Guayaquil. WTDR. P-73039.

3551—UNITED KINGDOM—Licenses to manufacture **food packaging equipment other than carton making machines, specialized conveyors and product handling equipment.** Especially interested in the production of **machines used in heat sealing of polyethylene and laminated films.** Prepared to handle European sales and service. Presently makes all types of packaging machines, employs 150. M. J. Howell, Sales Manager, Whitehall Machinery Ltd., Chalks Rd., Whitehall, Bristol BS5 9 ER. WTD. P-73038.

3559 — ARGENTINA — U.S. manufacturer of **petroleum equipment** offered cross investment opportunity. Argentine firm seeks partner, technology; prepared to invest in American concern. Argentine company major producer of gas, water and oil valves, flow control equipment and gates. Employs 200; reports annual sales of about $1.5 million. Facilities include iron foundry, molding and casting capacity. Petroleum equipment industry in expansion phase. Moto Mecanica Argentina S.A.I.C., Ruta Nacional No. 8 Km. 20, Pdo, 3 de Febrero, Buenos Aires. WTDR. Further details available from the Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230. P-73043.

3559 — NEW ZEALAND — License to manufacture **car parking equipment.** Particularly interested in a roll-on, roll-off, two tier system where the upper space is raised and lowered hydraulically. Well-established engineering firm, extensive facilities. National sales network. James J. Drewry, Development Engineer, Mason Industries Ltd., 17 Maurice Rd., Penrose, Auckland 6. P-73042.

3569—UNITED KINGDOM—License to manufacture any **fluid handling product or system** complementary to its production and marketing expertise. Currently makes centrifugal pumps. Established 1878, employs 500. J. A. Nutt, Managing Director, Sigmund Pulsometer Pumps Ltd., Oxford Road, Reading, Berkshire. WTDR. P-73031.

3570 — SWITZERLAND — Large manufacturer of **typewriters, calculators, mini-computors and other business machines** seeks licenses to produce complementary machinery of advanced design. Also interested in **instrumentation, security equipment and detection apparatus.** Markets in Switzerland and Europe. Firm employs around 3,000; has production facilities in Switzerland, France, Brazil and Germany; sells worldwide. Representative plans to visit United States to discuss agreements with interested companies. WTDR. Write: Office of International Finance and Investment, BIC-286F, U.S. Department of Commerce, Washington, D.C. 20230. P-73041.

3613 — GERMANY — Manufacturer of high quality switchgear seeks licensing rights to produce **thumbwheel switches.** Founded in 1950, firm employs 100 and has annual sales exceeding $1 million. EBE Elektro-Bau-Elemente GmbH, Industriegebiet, D-7021 Stetten/Filder, Fed. Rep. of Germany. WTD. P-73037.

3630, 3585 — NETHERLANDS — Affiliate of U.S. firm seeks licenses to produce **household and commercial appliances, room air conditioning units, plumbing and sanitary supplies, leisure and recreation items. Also other sheet metal, enamelled and iron casting products.** Currently manufactures heaters, barbecue and camping equipment and foundry supplies. Sales organization covers Common Market. Employs 300, reports 1971 sales of about $5 million. G. F. van der Lee, Managing Director of N. V. Vulcaansoord, P.O. Box 1, Terborg, Netherlands, or Glen Muller, Asst. Manager, Lear Siegler, Inc., Climate Control and Housing Group, 3171 South Bundy Dr., Santa Monica, Calif. 90406. P-73040.

3674 — GUATEMALA — Businessman proposes draw-back arrangement with U.S. firm for **assembly of semi-conductors** and reexportation of assembled products to United States. Willing to establish and finance a corporation in Guatemala for project, but would accept equity participation by firm furnishing components for assembly. Guatemala reportedly has legislation permitting drawback operations. Michael Wilson, Representaciones Losanco, 16 Calle 3-56, Zona 1, Guatemala City. WTDR. P-73045.

3751 — UNITED KINGDOM — License sought by producer of artificial limbs and wheelchairs to manufacture **bicycles,** either for a U.S. agent or selling organization. Firm has all manufacturing equipment for bicycle production. Established in 1949, firm employs 650 and has annual sales of over $5 million. VESSA Ltd., Henley Park, Normandy, near Guildford, Surrey, England. Attn: A. B. Lang. P-73030.

3841 — UNITED KINGDOM — Long-established major manufacturers of diverse range of advanced electro-optical equipment including integrating microdensitometers for cytology and cardiac monitoring seeks licenses for **sophisticated**

electronic or optical electronic medical diagnostic/monitoring equipment. Unit selling price should exceed $500. Employs 1,500 with $7 million turnover through worldwide sales contacts in medical circles and very strong R&D capability. Foresees substantial growth in practice of physicians pooling funds to buy expensive equipment. Barr & Stroud Ltd., Anniesland, Glasgow G13 1HZ, Scotland. P-73044.

Licensing In U.S.

For additional information on opportunities to manufacture foreign firm's products in the U.S., write Commerce's Office of International Finance and Investment, BIC-286, U.S. Department of Commerce, Washington, D.C. 20230, (202-967-2248), referring to the appropriate file number.

AUSTRIA—An intermediary is offering rights to produce in the U.S. a new technology for an electric battery which reportedly can power a medium-sized car. The average life expectancy is estimated at 4000-5000 hours. File 2318

FRANCE—Company is offering plastic aerosol devices used in connection with spraying plants, and for dusting plants, animals, babies, and so on. File 2319

GERMANY—One of the 23 firms in the Schaefer group is offering license for manufacture in the U.S. of its pharmaceutical preparations for treatment of rheumatism, vein problems, and weight reduction. The firm is also interested in cross-licensing of non-prescription pharmaceuticals. File 2320

ISRAEL — Company has developed a teaching machine for which it is offering licensing or joint venture rights for production in the United States. File 2321

NETHERLANDS—Company is offering machine for packaging in the food and pharmaceutical industries. Automatically seals lids to preformed trays that are separately fed into the machine, which is patended in The Netherlands. File 2322

NORWAY—Manufacturer offers licenses for the production of its line of hot water heaters and ancillary equipment for use in homes, on ships, in plants, hospitals, hotels and kitchens. File 2323

SWITZERLAND—Company is offering a process and "know-how" for the use of coal slag as raw material for the manufacture of building materials. File 2324

SWITZERLAND—Manufacturer of advanced packaging machines used in the chocolate and candy industries is offering manufacturing licenses for a line of machines used in packaging of powders, granules and similar materials in bags and carboard boxes. Its fields of applications include the food and feed industries, chemical, cement, detergents, and fertilizers. File 2325

SWITZERLAND — Manufacturer of teaching aids is offering for production in the U.S. its electronic aids for language and typing classes. File 2326

SWITZERLAND—The electronics division of a well-known concern offers a license for its line of fully integrated logic control units for industrial use. It is a line of highly developed noise, vibration and temperature resistant devices for use on all kinds of industrial machinery such as machine tools, assembly lines, chemical production machinery, foundry equipment, and others. Included are a power supply/adaptor unit and a logic commands simulator. The simulator is suitable for training purposes at universities and technical schools. File 2327.

SWITZERLAND—A medium to large manufacturer of chocolates, confectionery and desserts is offering for production in the U.S. under license its line of instant puddings. File 2328

SWITZERLAND—A Swiss machine tool maker wishes to make arrangements with a U.S. firm to manufacture numerically-controlled turret lathes used mainly for bar and chucking work. The machines come equipped with digital logic circuits for sequence control and can be programmed by plugboard. Presently these machines are manufactured under license in several European countries. The company is also interested in producing machine tools in Switzerland under U.S. licenses. File 2046-R

Developing Nations Seek UNDP Assistance On 30 Varied Projects

Twenty-one developing nations have submitted 30 requests for financial assistance to the Director of the United Nations Development Program. These projects are made available to the U.S. business community at this preliminary point so that American firms may determine if the project falls in their area of interest. If the project merits follow-up and if it is approved, the firms will be in a better position to submit proposals.

Readers are thus reminded that these requests have not yet been funded nor has an executing agency been designated to implement them. Included in these requests are projects involving management training, educational planning, mineral exploration, transport study, road network systems, horticultural, agricultural, power research, television film research and others.

Summaries of each project listed are available from the Office of Export Development, Trade Opportunities Section, BIC-267, U.S. Department of Commerce, Washington, D.C. 20230. Please include project number and country name when requesting summaries.

ALG/72/006/A/01/11 — ALGERIA: Management training of managerial personnel for the industrial sector.

ALG/72/015/B/01/13 — ALGERIA: Planning and organization of educational and training activities.

ARG/70/535/B/01/01—ARGENTINA: Mineral exploration in the Northwest, phase II.

BUL/71/507/B/01/13 — BULGARIA: Automated center for scientific and technical information, Sofia.

CEY/72/023/A/01/01 — SRI LANKA (CEYLON): Increasing effectiveness of Academy of Adminisrtative Studies.

CEY/72/028/A/01/13 — SRI LANKA (CEYLON): Strengthening of the institutions for technical training.

COL/72/014/A/01/14 — COLOMBIA: Development of health administration.

COL/72/015/A/01/14 — COLOMBIA: Improvement in health information system.

The following projects for Colombia are in Spanish.

COL/72/030/A/01/13 — COLOMBIA: Administracion y Planificacion de la educacion.

COL/72/032/A/01/13 — COLOMBIA: Capacitacion y perfeccionamiento del personal docente en servicio.

COL/72/033/A/01/13 — COLOMBIA: Concentraciones de desarrollo rural.

COL/72/034/A/01/13 — COLOMBIA: Educacion ocupacional.

COS/71/512/A/01/42—COSTA RICA: Transport study of the metropolitan area of San Jose.

COS/72/007/B/01/37—COSTA RICA: Industrial development.

ETH/72/006/B/01/12 — ETHIOPIA: Development of Awash Valley, phase III.

IND/72/033/A/01/13 — INDIA: Television film research and prototype program production unit.

IND/72/047/A/01/13 — INDIA: Advance technology in solid-state electronics, CEERI, Pilana.

IND/72/054/A/01/13 — INDIA: Strengthening of the Central Power Research Institute, Bangalore and Bhopal.

KEN/71/527/D/01/12 — KENYA: Sheep and goat development.

KEN/71/528/C/01/12 — KENYA: Horticultural crops production and marketing.

KUW/71/007/A/01/37 — KUWAIT: Industrial development and consulting bureau.

MAL/70/015/D/01/11 — MALAYSIA: Medium and small scale industry consulting service.

NEP/72/002/A/01/12 — NEPAL: National parks and wildlife conservation.

PAN/72/008/A/01/01 — PANAMA: Planning and administration of regional development.

POL/71/513/A/01/31 — POLAND: Development of road network.

ROM/72/005/A/01/11 — ROMANIA: Management development center at Bucharest, phase II.

SOM/71/516/B/01/12—SOMALI DEM. REP.: Pilot project for irrigated agricultural development of Shelbelle River.

TUR/72/004/A/01/01 — TURKEY: Mineral exploration in two areas (Phase II).

URT/71/533/B/01/11 — TANZANIA: The National Institute for Productivity (Phase II).

PDY/72/005/A/01/11 — PEOPLES DEM. REP. OF YEMEN: Cooperative education and training center.

Austrian Firm Offers To Help Firms Sell In Eastern Europe

A newly established Austrian firm, Intrapex Import-Export, wishes to establish contact with U.S. exporters interested in marketing their products in Eastern Europe, including the Soviet Union. The firm is primarily interested in handling industrial supplies including foundry products, sheet metal, belting, valves and fittings. U.S. exporters interested in Intrapex's services and prepared to share in the market development costs should write to Intrapex Import-Export Handelsges GmbH., Landstrasser Hauptstrasse 45, A-1030 Vienna. WTDR in prep.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Trade Opportunities Division, BIC-267, U.S. Dpartment of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U. S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

Abbreviations used are: I (importer); D (distributor); M (manufacturer); A (agent); R (retailer). To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTDR indicates that a World Traders Data Report on this specific firm is available for $5 from the U.S. Department of Commerce, BIC-266 Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information, including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDR's and request forms is available at local Commerce Field Offices.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Vegetables, melons

01610 — NETHERLANDS — Green and yellow peas, white beans, in 500 ton lots C&F Rotterdam. Grano Drente B.V. (A, I, exporter), 34 Heemraadsingel, or P.O. Box 2040, Rotterdam. Attn: Mr. D. Buitenhuis, Mgr. WTDR 12/72.

Livestock

02110—GREECE—About 5,000 6-8 week old calves to be delivered by air over four year period with deliveries to begin in late 1973; 2,620 animals to be furnished in first two-year period. Meat Manufacturing Co. of Northern Greece: Atten: Mark Craniades (I, M, D) 7 Karolou Diehl St., Thessaloniki. WTDR in prep. To be competitive, quotations from U.S. firms needed by end of January. Firm interested in direct purchase at prices in range of dollars 100-120 per head with guarantee of four year supply.

Heavy construction, except highway and street construction

•**15100—IRELAND**—Tenders are to be invited in February for construction of the first phase of the National Institute of Higher Education in Limerick. Building contractors and mechanical and electrical subcontractors who wish to be included on the list of firms from whom tenders will be invited should apply to the Dept. of Education, Building Unit, Marlborough St., Dublin 1. Prequalification deadline is Feb. 24.

•**15100—PANAMA**—The University of Panama has issued a call for bids on two projects: 1) Bid 1-73, Group A Project—School of Engineering, Experimental Engineering Center, student facilities, School of Architecture, and related public works; and 2) Bid 2-73. Group B Project—Biological Sciences School and specialized analytical laboratory. Bid deadline for both is Feb. 20. Complete plans, specifications and requirements are available at a nonrefundable cost of $100 per set from Oficina Ejecutora del Program UNIPAN/BID, Universidad de Panama, Cuarto Piso, Facultad de Derecho, Panama, Republica de Panama.

•**15100—SAUDI ARABIA**—The Government of Saudi Arabia has announced plans to award a design contract for a 400-bed military hospital in Riyadh. Interested firms should present their qualications to: Lt. General Uthman Al Hamid, Department of Logistics, Ministry of Defense, Riyadh, Saudi Arabia. No decision has been made regarding whether the design contract will be negotiated or awarded on the basis of competitive bids.

•**15100—SAUDI ARABIA**—The Government of Saudi Arabia intends to ask for bids soon for the construction of 750 homes in Jidda, 800 in Riyadh and 750 in Dhahran, according to designs and specifications developed for the Ministry of Finance by George Candilis. Additional information on this project is available from His Excellency Mohammed Abd Al-Khail, Minister of State for Finance, Hiyadh, Saudi Arabia.

•**15100 — SAUDI ARABIA** — The Government of Saudi Arabia plans to extensively renovate and expand the Taif Military Hospital at a projected cost of $7 million. The first step in this undertaking will be the design phase; interested architectural firms should submit their qualications immediately to: His Royal Highness Prince Sultan Bin Abxul Aziz, Minister of Defense, Riyadh, Saudi Arabia.

•**16100 — MALI** — The Government of Mali invites firms to prequalify to tender for a road project involving the following: clearing of land, improvement of existing road and its enlargement, new road and bridge construction, and surfacing (Tender No. 1). Firms in all World Bank member countries and Switzerland are eligible to bid. Companies presenting themselves as consortia must provide complete information on their organization. The project is to be financed through an International Development Assn. (IDA) credit and payments to the contractor will be subject to the IDA/Government of Mali agreement. Prequalification deadline is Feb. 15. Letters of inquiry must be accompanied by return postage. Write to either: Director General Public Works, Public Works Directorate, Ave. de la Liberte, Bamako, or Kez International, Victoria Station, Montreal, Canada. Fees of $8 requested for material from Kez and $10 from the Government of Mali. Prequalified firms will be notified by the Director General Public Works and will be sent additional information.

•**16200—AUSTRALIA**—Tenders will be invited shortly for work on Stage 1, Phase 2 of the North Head Waste Water Treatment Works, Sydney (Contract No. 4900-S). The contract will comprise the supply, testing and installation of the civil, mechanical and electrical work and commissioning and initial maintenance of these works. The contract will also include the pumping, pre-aeration, sedimentation, sludge digestion, gas handling, sludge disposal, incineration, water reclamation, chlorination, administration works, ventilation utility facilities and the integration of Stage 1, Phase 2 work with Stage 1, Phase 1 work constructed by the Metropolitan Water Sewerage and Drainage Board of Sydney. Firms interested in prequalifying to bid for this project must submit completed application forms to The Secretary, Metropolitan Water Sewerage and Drainage Board, P.O. Box A53, Sydney South, New South

Wales 2000, Australia, on or before 2 p.m., March 27. It is anticipated that invitations to tender will be sent to the registered applicants in mid-1973 and that tenders will close midway through the second half of 1973. Pre-registration documents are obtainable by writing to the above address or to the Agent-General for New South Wales, New South Wales Government Office, 56 Strand, London, W.C. England. A registration fee of US$240 must accompany each application in writing for the pre-registration documents. Information to be submitted with applications for registration is included in the pre-registration brochure.

16210—UNITED KINGDOM—Construction of flat glass plant, 12,000-18,000 tons p.a.; construction of bottle furnace, 10,000-12,000 tons p.a.; construction of tumbler plant, 1,300-2,500 tons p.a.; construction of batching plant. Bid deadline 1/20/73 (may be extended). Associated Technical Services (International) Ltd., Mr. D. F. Tooley (consulting engineers), 3 Collingwood Rd., Horsham, Sussex. WTDR in prep. Tender for existing plant extension at Syrian Glass and Porcelain Industries Company, Damascus, Syria.

Canning, preserving foods

20331 — GERMANY — Canned fruits. Prices should be quoted FAS. Erken & Brings Ohg, Er Bring's, (Contact: Herr Vieth) (I, D), 5 Koeln, Alteburger Str. 140-144. WTDR in prep.

20332 — GERMANY — Canned vegetables. Prices should be quoted FAS. Erken & Brings Ohg, Er Bring's (Contact: Herr Vieth) (I, D), 5 Koeln, Altebruger Str. 140-144. WTDR in prep.

20334 — GERMANY — Canned fruit juices, nectars, concentrates. Erken & Brings Ohg, Er Bring's (Contact: Herr Vieth) (I, D), 5 Koeln, Alteburger Str. 140-144. WTDR in prep.

20335 — GERMANY — Canned vegetable juices. Prices should be quoted FAS. Erken & Brings Ohg, Er. Bring's (Contact: Herr Vieth) (I, D), 5 Koeln, Alteburger Str. 140-144. WTDR in prep.

20336 — GERMANY — Catsup, other tomato sauces. Prices should be quoted FAS. Erken & Brings Ohg, Er Bring's (Contact: Herr Vieth) (I, D), 5 Koeln, Alteburger Str. 140-144. WTDR in prep.

20352 — GERMANY — Pickles, other pickled products. Prices should be quoted FAS. Erken & Brings Ohg, Er Bring's (Contact: Herr Vieth) (I, D), 5 Koeln, Alteburger Str. 140-144. WTDR in prep.

Grain mill products

20424 — NETHERLANDS — Millet, canary seeds, wheat middling pellets, in 500 ton lots C&F Rotterdam. Grano Drente B.V. (A, I, exporter), 34 Heemraadsingel, or P.O. Box 2040, Rotterdam. Attn: Mr. D. Buitenhuis, Mgr. WTDR 12/72.

Food preparations

20913 — SPAIN — CPEE cotton linters. Cabosa (M), Nicaragua, 69, Barcelona 15. WTDR 12/72.

Broad woven fabric mills, manmade fiber, silk

22215 — SWITZERLAND — Blended fabrics, 35 percent polyester, 65 percent cotton, white finished, colored. Carl Gorini AG (M, D), Vadianstr. 35, 9001 St. Gallen. WTDR in prep.

Textile goods

22940 — MEXICO — Waste cotton thread from textile factory for use in manufacture of mops. Blended thread with high cotton content would also be acceptable. Firm needs 45,000 lbs. of thread per mo. Productos Blanco, S.A. (M, D), Rio de la Plata Ote. 114, Colonia del Valle, Garza Garcia, Nuevo Leon. WTDR in prep. Firm would like price quotations f.o.b. Laredo, Texas or any other Mexican port of entry.

22990 — SPAIN — Unprocessed cotton mill waste. Cabosa (M), Nicaragua, 69, Barcelona 15. WTDR 12/72.

Miscellaneous apparel, accessories

23850 — NETHERLANDS — PVC gloves, mittens for industrial sports purposes. Direct purchase and/or representations requested. Modana B.V., Attn: Mr. D. van Huiden (I, D), 101-103 N.Z. Voorburgwal, Amsterdam. WTDR 10/72.

23850 — UNITED KINGDOM — Waterproof sportswear for fishing, sailing, horseriding, hunting, motorcycling. Belstaff International Ltd. (M), Caroline St., Loughton, Stoke-on-Trent, Staffs. ST3 IDD. WTDR 11/70.

Fabricated textile products

23920 — NEW ZEALAND — Sole New Zealand representation for above average house furnishings, bed covers, bed sets, sheets, pillowcases. Samples, f.o.b. prices required. Direct purchase & agency. Sargood, Son & Ewan Ltd., Contact: Mr. Barry J. Corrick, Marketing Mgr. (I, A, D, M), P.O. Box 5447, Auckland 1. WTDR 10/72.

Wood products

24996 — SPAIN — Fibreboard for manufacture of furniture. El Corte Ingles, S.A. (department store), Hermosilla, 112. WTDR 1/72.

Paper mills

26216 — PASKISTAN — Fully sized grade I mechanical printing paper containing not less than 70 percent mechanical wood pulp in assorted colors, such as extra bluish white, yellow, buff, orange, light green, golden red, pink and light blue. 55 GSM (gram per sq. meter); in reels, inside core 2-3/4 inch, outer diameter 30-33 inch. Lalla & Co. (I, R, D), Hospital Rd., Lahore. Cable: Inkspaper, Lahore. WTDR 5/71. Firm intends import 5,000 long tons immediately.

Books

27313 — NETHERLANDS — Books on astronomy, related sciences. Direct purchase or representations requested for Netherlands or European Common Market countries. Polaris Wetenschappelijke Instrumenten, Attn: Mr. W. Takens (I, A, D), 63 Bovenkerkerkade, Amstelveen. WTDR 11/72.

Industrial chemicals

28190—PANAMA—Dried ferrous sulfate for use in mixing with cottonseed meal. Sarasqueta y Cia., S.A., Attn: Ricardo E. Brown, Mgr. (M I), Apartado 1997, Panama 1. Suppliers should quote c.i.f. Panama. Telex 328-2095.

28199 — JAPAN — Californium - 252 source, 15 - 50 micro-curies of radioactivity. Shoshin Shoji Kaisha Ltd., Osaka Branch (I, D), 42, 5 Chome, Kawara-machi, Higashi-u, Osaka. WTDR 6/72.

28199 — MEXICO — Various kinds of salts including 50 kgms. of propanidid (C18H27N05.), 1 kgm. of promazyne (C17H20N2S.), 5 kgms. of promazyne hydrochloride (C17H20N2S.HC1) and 20 kgms. of mepivacaine (C15H22N20.) to be used in production of different pharmaceutical products. Deposito Dental del Norte, S.A. (D, M), Espinosa Pte. 613, Apartado Postal 467, Monterrey, Nuevo Leon. WTDR 8/72. Quantities sought are for first shipment only as firm is developing new line of products; if their plans go well, subsequent orders will be bigger and on regular basis.

Synthetic materials

28213 — INDIA — 500 tons high density polyethylene, 500 tons low density polyethylene; 200 tons polypropylene granules. Polymers & Resins Corp. (I, M), 46 Veer Nariman Rd., Fort, Bombay 1, Attn: P. J. Gandhi. WTDR in prep. Firm hopes to finalize purchase arrangements within two months.

28213 — THAILAND — PVC pellets used as raw materials for producing plastic bottles. Requests c.i.f. Bangkok prices, samples, literature. The Lauris Co., Ltd., Attn: Mr. C. R. Boons, Mgn. Dir. (M, D), 326/1-5 Surawongse Rd., Bangkok. WTDR in prep.

28220—ITALY—Synthetic rubber. Franco Rol (I, D), Corso Generale Govone 10, 10129 Torino. WTDR in prep.

Reclaimed rubber

30310—ITALY—Reclaimed rubber. Franco Rol (I, D), Corso Generale Govone 10, 10129 Torino. WTDR in prep.

Leather tanning, finishing

31110 — GERMANY — Leather wastes, suede, cabretta, smooth leather wastes from shoe industry, as well as wastes from upholstery, belt industries. E. Fischer, Lederabgalle (I, D), 678 Pirmasens, Krummgasse 6-8. WTDR in prep.

Glass, glassware

32210—INDIA—Glass belljars used for vacuum coating, wall thickness ranging from 5 to 8 MM with length of 8.1/2", 10", 12" and wall thickness ranging from 5 to 10 MM and length of 14", 12", 24". Belljars must withstand a temperature of 600 degrees centigrade in a vacuum range of 10-6HG. Hind High Vacuum Co. Pri. Ltd. (M), 1024 Chord Rd., Rajajinagar, Bangalore 10. WTDR in prep.

Glass products

32313 — GERMANY — Automotive safety glass, windshields, other windows, for all types of cars. Glas-Winkler (I, D), 6236 Eschborn, Postfach 1320. WTDR 10/71.

Cement

●32400—ALGERIA—Ministere du Commerce, Institute National des Prix Direction de l'Administration Generale, 59, Ave. Souidani Boudjemaa, Algiers, seeks proposals including price, quantities, qualities and other conditions for supply of an unspecified quantity of cement. Correspondence in French required.

Abrasive, asbestos, nonmetallic mineral products

32911 — ITALY — Industrial abrasive preparations. Franco Rol (I, D), Corso

Generale Govone 10, 10129 Torino. WTDR in prep.

Steel mill products

33120—AUSTRALIA — Galvanized steel sheet in coils 37⅛ in. wide conforming to ASTMA 446/67 grade E; with 1.75 oz./sq. ft. zimb coating weight; in 4 ton packs, price requested c.i.f. Perth, 6,000 tons per yr. with first delivery in March or alternatively, 1,800 tons per yr. Monodek Sales (I, M), 16 Rye Lanuzn Maddington, Western Australia. WTDR in prep.

33125 — SWEDEN — Soft magnetic iron or elecrolytic iron, high B (max) larger than 2.0 volts per sq. meter: resistivity larger than 0.25 ohms. square millimeter/meter not permanently magnetic material. Facit AB (M), Purchasing Dept., Albygatan 106, S-171 84 Solna. Attn: Mr. Ove Jonasson. WTDR 5/71. Catalogs requested as soon as possible from U.S. companies as Facit wants material urgently.

33127 — INDIA — 2500 metric tons mild steel, cold rolled or hot rolled (c.r.c.a.) sheet cuttings, soft annealed and oiled in any size and guage. Noble Trunk Factory (I, M, exporter), 333/39 Abdul Rehman St., Bombay 400003. Attn: Mr. Hafiz Gulam Hussain Kapasi. WTDR in prep.

Primary metal industries

33910 — UNITED KINGDOM — Explosively placed anchors for accurate positioning on the sea-bed. Company has limited load handling facilities and as such is looking for anchors with high holding power in relation to weight ratio. Holding loads of 25 - 100 tons would be normal and anchors should weigh in water up to 1,000 lbs. Vickers Ltd. Attn: C. Ferguson (M), Vickers Shipbuilding Group, Barrow Shipbuilding Works, P.O. Box 6, Barrow-in-Furness, Lancashire. WTDR in prep.

Cutlery, hand tools, general hardware

34233 — BOLIVIA — Sledges, hammers; shovels for mining purposes. Importaciones y Representaciones "Bustillos" (I), Calle Mariscal Santa Cruz No. 16, Llallagua. WTDR 10/72.

Fabricated structural metal products

34434 — INDIA — Gas cylinders (carbon dioxide) with capacities 2 kilograms (kg), 3.2 kg., 6.8 kg., and 9 kg. having concave bottom 1 in. BSP, thread without valve but with cap. Zenith Fire Services (M), 127-129 Mody St., Fort, Bombay 1. WTDR 7/72.

34434 — INDIA — 1000 empty cylinders capable of withstanding pressure of 3000 lbs. per sq. in., use in welding. Mandalia Overseas Corp. (exporter), 5/7 Rang Mahal, IV Floor, 212/16 Samuel St., Bombay 3. Attn: V. M. Mandalia. WTDR in prep. Firm anxious finalize purchase arrangements within two months.

Fabricated metal products

●34900—EL SALVADOR—Prequalification of bidders for the design and supply of 6- to 24-inch diameter steel piping (600 meters), valves, steam traps, strainers, relief valves, and associated equipment. Equipment will be installed at the 30 mw Geothermal Central at Ahuachapan, El Salvador. Prequalification statements of experience, financial resources, description of plant and organization, banking references, and other pertinent data should be sent to ELC Electroconsultant S.P.A., Design Engineers, 20151 Milano, 8 Via Chiabrera, Milan, Italy. Tender documents are available to qualified bidders; Bid deadline is March 30.

Farm machinery

35222 — PORTUGAL — Sprayers for use in cereal, vine, citrus, cotton plantations, gardens. Industrias Metalomecanicas Xavier Damiao, Lda. (M), Apartado 33, Torres Vedras. WTDR in prep.

35224 — PORTUGAL — Pulverizers for use in cereal, vine, citrus, cotton plantations, gardens. Industrias Metalomecanicas Xavier Damiao, Lda. (M), Apartado 33, Torres Vedras. WTDR in prep.

35228 — GREECE — Self-regulating, gas-operated incubators for 3-4 day old chicks. Direct purchase & agency. Anastasios Georgiades (I, A, D), 22 Franagom St., Thessaloniki. WTDR in prep. Requests brochure, quotations for early delivery.

35228 — KOREA — Farm poultry equipment, feed processing plant, full automatic system, production capacity of 160 MT/day (20 MT/hr., 8 hrs/day). Tae Young Sa, Inc. (A), I.P.O. Box 3705, Seoul. WTDR 6/72. Urgently needed. Catalogs, quotations required as soon as possible.

35228—ZAMBIA—Machine to clean and polish rice of all types, grades. Catalogues, price lists, descriptive materials requested. Olympic Milling Co. Ltd. (I, D, R, M), P.O. Box 348, Mufulira. Firm wishes complete purchase arrangements within two months. Interested suppliers to quote landed price of machine at Mufulira via Beira.

Construction, mining, materials handling machinery, equipment

●35300—BURMA—Two ten-ton single-drum hauling winches for logs. Tender No. 35(T)MCY-TC(72-73); bid deadline February 26. Asst. General Manager (Engineering), Timber Corporation, Ahlone, Rangoon. Specifications available on a short term loan basis to firms domiciled in the U.S. from Transportation and Capital Equipment Division, U.S. Dept. of Commerce, Washington, D.C., 20230, ★202-967-5593.

35310 — VENEZUELA — Construction machinery; automatic-pneumatic concrete gunning equipment. Correspondence should be in Spanish. Catalogs, descriptive materials requested. O.C.Y. P. Industrial, C.A. Attn: Mr. Jorge Martinez (construction company), Avenida Bella Vista Centro Comercial Leonsa, Local 20, Maracaibo. WDTR in prep. Firm hopes to complete purchase arrangements within two mos.

35322 — VIETNAM — Supply of clinker grinding mill for cement production. Requirement is for mill output of 300,000 tons clinker per annum. Mr. Chau Dao Sanh (I, D, M), 12 Ton That Dam St. Saigon. Refer to Vimytex. WTDR 4/71.

35324—BOLIVIA—Drill bits, percussion Rocks. Importaciones y Representaciones "Buxtillo" (I), Calle Mariscal Santa Cruz No. 16, Llallagua. WTDR 10/72.

35351 — VIETNAM — Supply of machinery, equipment to expand existing plant which produces plastic coated laminated panels such as one outfeed conveyor for spreader, one infeed conveyor for double saw, two outfeed conveyor for double saw. Machinery, equipment should be new and of standard manufacture; replacement should be readily available from supplier. Design, instruction and guidance in erection of machinery required. Electric power 220/390 volts, 3 phases, 50 cycle. Phi Ma Cong Nghiep Cong Ty (Phimaco) (I, D, M), 42 Dong Khanh, Saigon. WTDR in prep. Requests replies as soon as possible as plant expected to be fully operational by June 1973.

35361—GERMANY—Small vacuum lifting equipment for materials handling purposes. C. G. Ahlers (I, D, M), 285 Bremerhaven 27, P.O. Box 5008. WTDR 4/71.

Metalworking machinery

35418 — INDIA — Automatic metal working machinery used for making nuts, bolts up to 25 mm thickness and wood screws up to number 20 and 100 mm length. Mandalia Overseas Corp. (exporter), 5/7 Rang Mahal, IV Floor, 212/16 Samuel St., Bombay 3. Attn: V. M. Mandalia. WTDR in prep. Firm anxious finalize purchase arrangements within two months.

35442—COLOMBIA—Molds for molding plastics (used). Novedades Plasticas Ltda. (M), Calle 52 No. 73-24, Apartado Aereo 1733, Medellin. WTDR 12/72.

35480 — GERMANY — Metal scrap regenerating machinery. Etag A. M. Dockter GmbH & Co. KG (contact: Herr Dockter) (I, A, D), 4034 Angermund, Ginsterweg 25. WTDR 12/72.

35481 — VIETNAM — Supply of hot and cold rolling mills for manufacture of sheet steel for roofing and metal fabrications; capacity 100 tons a day. Mr. Chau Dao Sanh (I, D, M), 12 Ton That Dam St. Saigon. Refer to Vimytex. WTDR 4/71.

Special industry machinery

●35510—TUNISIA—SATPEC, government-owned film-making and distributing company is interested in acquiring popcorn making machinery for 11 movie theaters. Average seating capacity is 700. Correspondence preferred in French; English is acceptable. Contact: President-Director General, SATPEC. Rue Ibn Khaldoun, Tunis. No bid deadline or tender number available.

35511—KUWAIT—Equipment, management know-how on licensing basis for ice cream plant using fresh milk. Kuwait Dairy Co. (I, D, R, M), P.O. Box 3240, Kuwait. Cable Kudairco, Attn: Dr. Abdulrahman Salman. WTDR in prep.

35513—INDIA—Sugar refining plant capacity 300 metric tons per day; sugar plant instruments of specialized category. Tmn. Tiku, Administrative Officer, Indian Sugar & General Engineering Corporation (M), Yamunanagar, Jagadhri, Haryana. WTDR 8/72.

35513 — MALAYSIA — Food packaging machinery with output capacity of 200 sachets per min.; 45 mm (width) x 65 mm (height) with string attached (inner pack). Outer pack 65 mm x 83 mm laminated aluminum foil with printing in 4 colors. Quotations, sales literature. Amalgamated Food Ltd. (D, M), 236-A Jalan Pudu, P.O. Box 719, Kuala Lumpur. WTDR 12/72.

35513 — NORWAY — Fish packing, canning machinery for frozen as well as

canned fish products to be marketed on European and overseas markets through wholesale and retail outlets. Stabburet A/S (M), P.O. Box 66, 1601 Fredrikstad. WTDR in prep.

35513 — TURKEY — Machinery to process and can concentrated orange juice. Requests catalogs, proposals. Fintas, Attn: Mr. Fikri Sekerci, V. Pres. (I, M), Finike. WTDR in prep.

35513 — VIETNAM — Supply of machinery, equipment for production of refined edible oil. Factory includes one preparation plant with soybean cleaner, surge bin, automatic weight machine, magnetic separator, cracking rolls, bean conditioner, flaking rolls, expeller mill, conveying and elevating system. Capacity 400 tons soybeans per 24 hr/day; one continuous solvent extraction plant with continuous extractor, preheaters, evaporators and stripper, meal desolventizer and toaster, meal cooler, pulverizer, automatic sack filling and weighing machine; capacity 400 tons soybeans per 24 hr/day; one oil refining plant with continuous hot water degummed unit, continuous neutralizing, water washing and vacuum drying unit, continuous vacuum bleaching unit, fully continuous or semi continuous deodorizing unit; capacity 140 tons of crude oil per 24 hr/day; power 380 volts, 3 phases, 50 cycle; steam 150 p.s.i.g. at boiler stop valve; cooling water mean 30 degree C to 33 degree C; climate maximum shade temp. 33 degree C, minimum shade temp. 25 degree C, humidity maximum 85 percent, minimum 66 percent. Mr. Chau Dao Sanh (I, D, M), 12 Ton That Dam St., Saigon. Preference is multi purpose vegetable oil plant which can use copra, peanuts, other oil bearing seeds.

35521 — JAPAN — Knot tying machine for making ribbon bows, production capacity 10,000,000 pieces per month. F. G. Notion Co., Ltd. (M), 8-3, 4-Chome Motoyama Nakamachi, Higashinada-ku, Kobe. WTDR in prep.

35521 — TURKEY — Complete machinery, equipment for spinning mill, 4400 tons spun yarn per yr. capacity (min. 25200 spindles) 6750 hrs/yr. Ipas, Iplik ve Dokuma A.S. (M), Malatya. WTDR in prep. Bidding specifications in English available for $18 from Tumas Consulting Co., Ziya Gokalp Caddesi 17/2, Yenisehir, Ankara.

35521 — TURKEY — Complete machinery, equipment for spinning mill, 4400 tons spun yarn per yr. capacity (min 25200 spindles) 6750 hrs/yr. Kisla, Teksil ve Cimento Sanayii A.S. (M), Usak. WTDR in prep. Bidding specifications in English available for $18 from Tumas Consulting Co., Ziya Gokalp Caddesi 17/2, Yenisehir, Ankara.

35521 — TURKEY — Complete machinery, equipment for spinning mill, 4400 tons spun yarn per yr. capacity (min. 25200 spindles) 6750 hrs/yr. Yifas, Iplik Fabrikalari A.S. (M), Yesilyurt, Mwuatya. WTDR in prep. Bidding specifications in English available for $18 from Tumas Consulting Co., Ziya Gokalp Caddesi 17/2, Yenisehir, Ankara.

35531 — VIETNAM — Supply of machinery, equipment to expand existing plant which produces plastic laminated panels: cold press and hot press (450 tons each) glue mixer, glue spreader, high speed double saw. Machinery, equipment should be new and of standard manufacture; replacement should be readily available from supplier. Design, instruction and guidance in erection of machinery required. Electric power 220/380 volts, 3 phases, 50 cycle. Phi Ma Cong Nghiep Cong Ty (Phimaco) (I, D, M), 42 Dong Khanh, Saigon. WTDR in prep. Requests replies as soon as possible as plant expected to be operational by June 1973.

35540 — BOLIVIA — Paper industries, machinery, plant to produce sandpaper. Industrias Metalicas Nacionales (I, M), P.O. Box 996, La Paz, Bolivia, Cable address: IMNA. WTDR in prep.

35540—LEBANON—Machines for production, packaging of sanitary napkins, facial tissue, toilet tissue. Albert Abela S.A.L. (A, catering, food processing), P.O. Box 3203, Beirut. Attn: Albert F. Da'dis, Purchasing Mgr. WTDR in prep. Firms would require supplier's assistance in erection, start-up, initial operation, training local operators.

35590 — SPAIN — Turn-key installation for production and purification common salt from brine solutions, annual capacity 20,000, 40,000 or 100,000 tons. Requests quotation for equipment, possibly with process license. Continental Markets, S.A. (D), Edificio Espana 4-15-2, Madrid 13. WTDR in prep.

35591 — BRAZIL — Chemical process equipment, accessories. FISIBA—Fibras Sintéticas da Bahia S.A. (I, M), Avenida Estados Unidos 377, sala 601, Salvador, Bahia. WTDR 11/71.

35591 — INDIA — Two colloid mills, submicrone disperser, triplex and reciprocator type, capable of developing pressure up to 10000 p.s.i.g. with capacity of 75 to 150 gals. per hr. Should give stable emulsion in a single pass. Hico Products Private Ltd. (M), Mogal Lane, P.B. 6467, Mahim, Bombay 400016, Cable: Batchinol. WTDR in prep.

35591 — TURKEY — 2 1/2 ton chemical reactor to produce sodium talene sulfonate and sulfonic acid. Catalogs, price quotations requested. Aydogan San (consulting engineer), Tesvikiye. Ihlamur Yolu A 42/19, Istanbul. WTDR in prep.

35592 — INDIA — One horizontal centrifugal casting machine with output capacity of 6 to 12 ft. in length and 3 to 15 in. outside diameter; one vertical centrifugal casting machine capacity 48 in. table size; one internal boring machine suitable for machining 3 to 15 in. inside diameter up to 12 ft. length. Nitin Castings Private Ltd. (M), 21 Ropewalk St., Off Forbes St., Fort, Bombay 400 001. WTDR in prep.

35593 — IVORY COAST — Machines for fabricating ethylene vinyl acetate sheets for soles (thickness about one centimeter or three eighths of an inch) for thong sandals, shoes. Correspondence in French. SOCAM (Societe Commercial Africaine d'Importation) (M), Boite Postale 679, Abidjan. Cable: Socam. WTDR in prep.

35594 — MALAYSIA — Machinery for producing nipples for baby bottles and pacifiers. Gay United International Trading Co. (I, exporter). 94 Taman Jesselton, P.O. Box 730, Penang. WTDR in prep.

35595 — PAKISTAN — Equipment for washing high voltage (220 kv) power transmission alive line insulators for pollution deposits. Imperial Electric Co. (I), 7 Shah Din Bldg., Shahrah-e-Quaid-e-Azam, P.O. Box 389-D Lahore. Cable: Imperial, Lahore. WTDR 10/72. Firm hopes to complete purchase arrangements soonest.

35595 — ZAMBIA — Machinery to make concrete blocks; factory to have initial capacity of 2000 blocks/day and potential of 5000 blocks/day; also moulds and portable vibrators for such products as fence blocks, pillars, railway ties and street light poles. Request catalogs with detailed specs on input, power supply and output. Price list must accompany order. Shoppers Village, B. G. Solanki (I, A. R), P.O. Box 233, Livingstone. WTDR in prep. Requests replies as soon as possible as firm wants to order machinery in January.

General industrial machinery

●**35600—TURKEY**—Boiler feed pumps 250 ton/hour capacity; circulating water pumps 11,500 ton/hr. capacity; main condensate pumps 400 ton/hr. capacity. Tender No. not specified: bid deadline March 30. Turkiye Elektrik Kurumu (Turkish Electric Authority), Santrallar Dairesi, Necatibey Caddesi, Ihlamur Sokak, Maro Han 7th Floor, Ankara. Interested firms must buy two copies of specifications available for TL1,000 ($72) each at above address. Bidders are required to return two copies completed bid documents.

35613 — ZAMBIA — Bore hole pumps, equipment. Catalogs, price lists, written proposals requested. Ian D. Beckford, field mgr. Irrigation Services Ltd., P.O. Box 33, Lusaka.

35673—INDIA—High frequency induction electric furnace (used in manufacturing gas cylinders) 100 KW and 10,000 cycle C.C. suitable for heating tubes 6½" diameter, 6" long, ⅜" thickness. Total tube length 4' made to British Standard Specification 1288. Zenith Fire Services (M). 127-129 Mody St., Fort, Bombay 1. WTDR 7/72.

35690 — GERMANY — Machinery for manufacture of flexible air ducts for installation in air heating, air cooling and air conditioning systems. Machinery should be able to manufacture paper-aluminum - paper, paper - steel - paper, paper-plastic-paper, aluminum-aluminum and plastic - steel - plastic ducts with diameters ranging from 10 millimeters to 500 millimeters. Gherhard Kutter, contact: Mr. Kutter (construction firm), 12 Stettiner Strasse, 1 Berlin 65. WTDR in prep. Requests replies as soon as possible as installation of air heating systems using flexible air ducts relatively new technique in Europe. Firm also seeks exclusive distributorship for Europe.

35690—INDIA—Machinery for plant to manufacture annually: 2.5 million cubic meters liquid oxygen, 177,000 cubic meters liquid nitrogen, 64,800 cubic meters argon gas and 216,000 cubic meters acetylene. Nitin Castings Private Ltd. (M), Post Box No. 74, Eastern Express Highway, Thana 1, Maharashtra. Cable: Nitineng, Thana. WTDR in prep.

35690 — INDIA — Oxygen plant with hour production capacity of 60 cubic meter or 135 cu. mt. or 250 cu. mt. having purity 99.7 percent, and pressure 165 kg./square centimeter. Require neces-

sary parts such as air filter, generating unit, air separator, air compressor, scrubbing tower, air drying unit. Oxygen produced should be channeled into cylinders. Mandalia Overseas Corp. (exporter), 5/7 Rang Mahal, IV Floor, 212/16 Samuel St., Bombay 3. Attn: V. M. Mandalia. WTDR in prep. Firm anxious finalize purchase arrangements within two months.

35690 — SWEDEN — Electric insect killers consisting of light source and an electrically charge screen in front of light. Insects are attracted to light and killed when passing screen. Asea (M), Malmoregionen, Box 405, S-201 24 Malmo 1. Attn: Mr. H. Nerma. WTDR 11/71.

Office, computing, accounting machines

35731 — ITALY — Small to medium-size EDP equipment for industrial process control, or for ship guidance, other marine operations. Termokimik Corp., Attn: Ing. Michele Andreotti (I, M, engineering), via Flumendosa 13, 20132 Milan.

Service industry machines

35857 — PAKISTAN — Automobile air conditioners. Sui Northern Gas Pipelines Ltd., Attn: S. A. Nayer (I), P.O. Box 56, Monoo House, Montgomery Rd., Lahore. Cable: Suinorth, Lahore. WTDR 1/70.

Electric transmission, distribution

36110 — GERMANY — Electronic measuring and testing instruments for industrial, bio-medical, military applications. Institut Dr. Friedrich Foerster (M), 4 Grathwohlsrasse, D-7410 Reutlingen. WTDR 7/72.

36110 — NEW ZEALAND — Electronic testing and measuring equipment, audio frequency, amplifiers, audio signal generators, oscilloscopes. Catalogs, prices requested. Direct purchase & agency. Teevee Radio Ltd., Contact Mr. L. H. Brown, Mng. Director (I, A, M), P.O. Box 5029, Auckland. WTDR 12/72.

36130 — GERMANY — Relay switches, protective gas-magnetic switches, filling level limit switches with radio-isothopes. Meyer, Herbert, Industrie Elektronik KG (A), 454 Lengerich, Muehlenweg 2. WTDR in prep.

36131 — GERMANY — Thumbwheel switches. EBE Elektro-Bau-Elemente GmbH (M), Industriegebiet, D-7021 Stetten/Filder, Baden-Wuerttemberg. WTDR 12/72.

Electrical industrial apparatus

36220 — GERMANY — Electric band edge controls. Meyer, Herbert, Industrie Electronik KG (A), 454 Lengerich, Muehlenweg 2. WTDR in prep.

Electric lighting, wiring equipment

36426 — BOLIVIA — Carbide lamps. Importaciones y Representaciones "Bustillo" (I), Calle Mariscal Santa Cruz No. 16, Llallagua. WTDR 10/72.

Communication equipment

36611—SRI LANKA (CEYLON)—Supply of 600 line PABX telephone system for hotel. Asian Hotels Corp., Ltd. (I), 440 Union Place, Colombo 2. WTDR in prep.

Electronic components, accessories

36742 — AUSTRALIA — Power transistor with following specifications: T03 package; VCEO 140 volts max; 1C 15 amps max; 1B 7 amps max. Junction type must be single diffused type or other construction exhibiting naturally high order of miller effect. Mesar and epitaxial types etc. with high frequency cut off are not suitable. Technical Services WA. (M, R), 10 Glyde St., Mosman Park, Western Australia. WTDR in prep. Firm desires 1000 units as soon as possible via airmail with annual requirements of 10,000 units.

36790 — GERMANY — Electronic and electrotechnical elements. Meyer, Herbert, Industrie Electronik KG (A), 454 Lengerich, Muehlenweg 2. WTDR in prep.

36790 — NEW ZEALAND — Electronic components for radio & television use, namely condensers, capacitors, switches, connectors. Direct purchase & agency. Teevee Radio Ltd. Contact Mr. L. H. Brown, Mng. Dir. (A, D, M) P.O. Box 5029 Auckland. WTDR 12/72.

Trade Leads Speeded

To speed transmittal of these trade opportunities, the U.S. Foreign Service is telegraphing them to the U.S.

The Commerce Department is now taking two other steps in further improvement of this transmittal system. One is to publish leads in Commerce Business Daily, *a Department publication presenting U.S. Government procurement invitations, contract awards, surplus sales, etc. The other is a direct mail service to certain industries.*

Within seven days of overseas transmission, trade leads for products in the following industries are mailed directly to U.S. firms registered on the Commerce Department American International Traders Index (AITI):

Electronic Data Processing Equipment

Food Packaging and Processing Equipment

Pumps, Valves and Compressors

Airconditioning and Refrigeration Equipment.

Agricultural Machinery and Equipment.

In view of the blanket coverage in this direct mailing service, trade opportunities in these five fields will no longer be published in Commerce Today *nor in* Commerce Business Daily.

To receive these trade leads, U.S. firms not already registered on the AITI should contact the nearest Commerce Business Service Field Office for registration information (see list, inside back cover).

It is planned to expand the direct mail service, in the near future, to cover additional industries. Notice of such expansion will be published on these pages.

Subscriptions to Commerce Business Daily, *at $40 per year, plus $30.25 for airmail service if desired, can be obtained from Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402, enclosing check for correct amount.*

Motor vehicles, equipment

37130 — NETHERLANDS — Garbage trucks, street cleaning sweepers, other highway vehicles of related types. Direct purchase or exclusive representations requested for Netherlands and/or Western European countries. N.V. Teba, Attn: A. Noels (I, A, D), 1 Nijverheidstraat, Heerhugowaard. WTDR 10/72.

37141 — GERMANY — Accessories, parts for all makes of automobiles. Glas-Winkler KG (I, D), Postfach 1320, 6236 Eschborn. WTDR 10/71.

Ships

37310—LIBERIA—4-5 second-hand cargo vessels of 6,000-7,000 tons each, not over 15 years old, with refrigeration capabilities, preferably of same size and manufacture, containing similar engines, etc. Saleeby Bros. Corp. (I, A, D). Sleiman Georges Saleeby, Mng. Dir., P.O. Box 137, Monrovia.

Engineering, laboratory, scientific, research instruments

38112 — PAKISTAN — Metallurgical laboratory apparatus and equipment for determination of carbon, silicon, magnesia, phosphorous, sulfur, etc., in cast iron and steel. M.K. Foundry & Engineering Works Ltd. (M), Kot Lakhpat, P.O. Box 1104, Lahore. Cable: Pipe, Lahore. WTDR in prep. Firm hopes to complete purchase arrangements soonest possible.

38112 — SPAIN — Automated blood cell counters, automated sample analyzers. Hosclinsa (I, D), Avda. Jose Antonio, 645, 40 A-Barcelona 10. WTDR in prep. Quotations c.i.f. Barcelona.

Optical instruments, lenses

38311 — NETHERLANDS — Astronomical instruments such as telescopes, heliostats, coelostats. Direct purchase or representations requested for Netherlands and/or European Common Market countries. Polaris Wetenschappelijke Instrumenten, Attn: Mr. W. Takens (I, A, D), 63 Bovenkerkerkade, Amstelveen. WTDR 11/72.

Surgical, medical, dental instruments

38410 — DENMARK — Veterinary instruments, apparatus. Jorgen Kruuse A/S (M, A, D), 35 Byvej, DK 5290 Marslev. WTDR 11/72.

38420 — GERMANY — Lumbal and cervical traction apparatus (hospital equipment). Mansab Schnittka & Abkal Hg. (I, D), 2 Hamburg 54, Kieler Strasse 689. WTDR 12/72.

38421 — SPAIN — Intracardial catheters, artificial kidneys (both coil and kiil systems) and intermittent positive pressure breathing (I.P.P.B.). Hosclinsa (I, D), Avda. Jose Antonio, 645, 40 1A, Barcelona-10. WTDR in prep. Firm prepared to place order immediately for 3 million intracardiac catheter units. Quotations c.i.f. Barcelona requested.

Manufacturing industries

39913 — NETHERLANDS — Industrial brushes, for many and varied industrial applications. Direct purchase or exclusive representations requested for Netherlands and/or Western European countries. N.V. Teba Attn: Mr. A. Noels (I, D, M), 1 Nijverheidstraat, Heerhugowaard. WTDR 10/72.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Food preparations

20922—GREECE—Soybean meal suitable for livestock feed. Aristidis G. Litos (A, D), 19 Frangon St., Thessaloniki. WTDR 12/72. Requests quotations, delivery times.

Broad woven fabric mills, cotton

22110 — FRANCE — Fabrics, broad woven; cotton. Agache-Maille (M, D, I), Boite Postale No. 361, 75017 Paris. WTDR 12/72.

22113—IVORY COAST—Drill cloth for work clothes. Hans Mehr (Home Office: Ernst Merck Strasse, Hamburg, Germany), (A). Mr. Baumeister, Boite Postale 20992, Abidjan.

Broad woven fabric mills, manmade fiber, silk

22210 — FRANCE — Acrylic broad woven fabrics; broad woven fabrics, silk and man-made fiber. Agache-Maille (M, D, I), Boite Postale No. 361, 75017 Paris. WTDR 12/72.

22211 — FRANCE — Polyester broad woven fabrics; satins. Agache-Maille (M, D, I), Boite Postale No. 361, 75017 Paris. WTDR 12/72.

Broad woven fabric mills, wool

22310 — FRANCE — Fabrics, broad woven of wool, mohair & similar fibers. Agache-Maille (M, D, I), Boite Postale No. 361, 75017 Paris. WTDR 12/72.

Millwork, veneer, plywood, prefabricated structural wood items

24332 — JAPAN — Plywood paneled prefabricated cold storage for frozen food; storage capacity 5 - 200 cubic meters. Catalogs, descriptive materials requested. Science & Technology Development Center (STDC Inc.) (I, engineering and technological consultant), 17th Mori Bldg., 2 Shiba Nishikubo Sakuragawa-cho Minato-ku, Tokyo. WTDR 9/72.

Books

27310 — UNITED KINGDOM — Non-fiction books especially on history, biography, art, films, travel. Literary Services & Production Ltd. (I. D, M) 2 Denbigh Close, London W11 2QH. WTDR in prep.

Industrial chemicals

28190 — GERMANY — Radioactive isotopes and radio chemicals, laboratory chemicals, luminous compounds. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTDR in prep.

Synthetic materials

28213 — TAIWAN — PVC resins for wire & cable (suspension polymerization, 1250 degree of polymerization, 70 'k' value, 0.40 bulk density, 100 percent pass through 42 meshes sieve of particle size, volatile matter below 0.5 percent); PVC resin for plug (800 degree of polymerization, 60 'k' value). Chian Yi Enterprise Co., Ltd. (I, D, A), P.O. Box 58863, Taipei. WTDR in prep.

28242 — INDIA — Acrylic fiber and tow of various lengths, deniers; dyed acrylic yarn between 7 count and 48 count. Vijay Parkash Gupta, Veepee Wool Syndicate (A, I, D), Kachi Gali, P.O. Box 183, Ludhiana, Punjab. WTDR in prep.

Drugs

28330 — GERMANY — Biochemicals for laboratories, such as enzymes, glutanic acids, similar products. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTDR in prep.

Detergents, perfumes, cosmetics

28440 — DENMARK — Perfumes, cosmetics, other toilet preparations. Comsmic (I, A, D), 52 Strodamsvej, DK 2100 Copenhagen O. WTDR 12/72.

Paints, varnishes, lacquers, enamels

28510 — SPAIN — Paints. Suministros Industriales Alonso Rubio (I, A, R). Doctor Esquerdo 43, Madrid 28. WTDR 12/72.

Fabricated rubber products

30698—GERMANY—Rubber toys, blow-up. Induwa Spiielwarenvertrieb, Attn: Mr. Paul Menckhoff (I, D, A), 415 Krefeld-Traar, An Der Elfrather Muehle 241.

Leather tanning, finishing

31110 — GERMANY — Suede. other smooth cattle, calf and sheep leather for leather wearing apparel. J. Rech & Co. (I, A), 19 Bieberer Str., 6050 Offenbach/Main.

Flat glass

32111—IVORY COAST—Window glass, heat reflective, tinted and textured. Hans Mehr (Home Office: Ernst Mercke Strasse, Hamburg, Germany), (A), Mr. Baumeister, Boite Postale 20992, Abidjan.

Abrasive, asbestos, nonmetallic mineral products

32912 — NETHERLANDS — Artificial and natural abrasives. Exclusive representations requested for Netherlands. Handelsonderneming Wiering (I, D), 178A Enschedesestraat, Hengelo (O.). WTDR 11/72.

32913 — NETHERLANDS — Buffing and polishing wheels, cloth, other laps and related buffing, polishing products. Exclusive representations requested for Netherlands. Handelsonderneming Wiering (I, D), 178A Enschedesestraat, Hengelo (O.). WTDR 11/72.

32950 — GERMANY — Semi conductor materials; single crystals and intermetallics, ultra pure metals. rare earth. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTDR in prep.

Heating apparatus, plumbing fixtures

34336 — BELGIUM — Heating equipment, swimming pools. Sovac S.A. (M, I, A, D), 21, Ave. G. Benoidt, 1170 - Brussels. WTDR in prep.

Fabricated structural metal products

34420—IVORY COAST—Aluminum window sash and frames, prefabricated building structures. Hans Mehr (Home Office: Ernst Merck Strasse, Hamburg, Germany), (A), Boite Postale 20992, Abidjan.

Construction, mining, materials handling machinery, equipment

35351 — NETHERLANDS — Conveying equipment, systems for different industrial purposes. Sales territory Western Europe. Deucon B.V. (A, D, I, M, exporter), 12, Fabriekstraat or P.O. Box 10, Deurne. Attn: Mr. Th. J. C. Adriaans, Sales Mgr. WTDR in prep.

Metalworking machinery

35414 — NETHERLANDS — Grinding, polishing and buffing machines, and honing and lapping machines. Exclusive representations requested for Netherlands. Handelsonderneming Wiering (I, D), 178A Enschedesestraat, Hengelo (O.). WTDR 11/72.

35482 — NETHERLANDS — Portable power-driven electric and pneumatic grinders, polishers, sanders. Exclusive representations requested for Netherlands. Handelsonderneming Wiering (I, D), 178A Enschedesestraat, Hengelo (O.). WTDR 11/72.

Special industry machinery

35552 — GERMANY — Photographic typesetting machine. Exclusive agency. Graphischer Bedarf & Maschinenbau GmbH (M, I, D, A), Postfach 308, 6710 Frandenthal/Pfalz. WTDR in prep.

35595 — GERMANY — Equipment, materials for production of printed circuits, related components, such as racks, rack mounts, cabinets, connectors and sockets, cooling elements for transistors and ICs, design equipment, mask alignment equipment, etc. Schoeller & Co. Elektornok GmbH (M), Marburger Strasse, 3552 Wetter. WTDR in prep.

35595 — AUSTRALIA — Jewelers' machines-grinding, polishing equipment. Tasmanian Gems & Mineral Pty. Ltd. (I, D, R), 65 Sorell St., Georgetown, Tasmania 7253. (P.O. Box 63). WTDR 2/72.

General industrial machinery

35611—UNITED KINGDOM—Metering and dispensing equipment for component resin systems, particularly epoxy resin. Applications Technology (Resins) Ltd. (I, D), Main Rd., West Kingsdown, Seven Oaks, Kent.

35642—ITALY—Air pollution and dust control equipment dedusting plants. Abrasivi Metallici S.P.A. (I, A), Via Zanella 90, 20033 Desio (Milano). WTDR in prep.

35690 — AUSTRALIA — Fire prevention and fire protection systems, ancillary equipment, excluding automatic fire sprinkler equipment, thermal and smoke detectors, fire extinguishers. Amid Pty. Ltd. (I, A, D), 58 Commercial Rd., Hyde Park, South Australia 5061. WTDR 11/72.

35690—GERMANY—Machinery for manufacture of flexible air ducts for installation in air heating, air cooling and air conditioning systems. Machinery should be able to manufacture paper-aluminum-paper, paper-steel-paper, paper-plastic-paper, aluminum-aluminum and plastic-

steel-plastic ducts with diameters ranging from 10 millimeters to 500 millimeters. Gerhard Kutter, contact: Mr. Kutter (construction firm), 12 Stettiner Strasse, 1 Berlin 65. WTDR in prep. Requests replies as soon as possible as installation of air heating systems using flexible air ducts relatively new technique in Europe. Firm seeks exclusive distributorship for Europe.

Office, computing machines

35731 — GERMANY — Data processing machines, equipment. Weber Computer Organization GmbH & Co. KG, Attn: Guenter Weber (A), 48 Bielefeld, Steubenstr. 6-8. WTDR 12/72.

35741 — SWITZERLAND — Electronic pocket size, battery operated mini calculators, also desk top models, printing type, 220V, 50 cycle. AC. Parulag Ltd. (I, D), P.O. Box 3170, 8401 Winterthur. WTDR 12/72.

35741 — SWITZERLAND — Electronic, battery operated mini calculators, desk top models, also printing type. 220 volt, 50 cycle AC. Werner Tobler (I, D), Limmattalstr. 84, 8049 Zurich. WTDR in prep.

35790 — BELGIUM — Teaching machines, language training, laboratory and individual use, electrically or electronically. Ivac S.A. (I, A, D, language training), 691 Chaussee de Mons, 1070 Brussels. Subsidiary of Bell Telephone Company, Antwerp.

Service industry machines

35892 — LEBANON — Gas chlorinators. Ets. Louis Eid Engineering S.A.L. (I, A, D), Arz St., P.O. Box 2363, Beirut. WTDR in prep.

Electrical industrial apparatus

36220—AUSTRALIA—Safety and security systems, ancillary equipment. Amid Pty. Ltd. (I, A, D), 58 Commercial Rd., Hyde Park, South Australia 5061. WTDR 11/72.

36220—FRANCE — Automatization and computer control of industrial and medical processes. RN Electronique (M, D), 236, Rue Sadi Carnot, 59320 Haubourdin. WTDR in prep.

36220 — GERMANY — Measuring, control equipment of any type. G.S.T. Regeltechnik GmbH, (contact: Dr. W. Wegener) (M, I), 463 Bochum-Riemke, Rensingstr. 8. WTDR in prep.

Household appliances

36311 — JAMAICA — Electric stoves for household use. Quotations: c.i.f. Cayman Islands. Home Supplies Ltd., Attn: Mr. Brian Finnigan (I, A, R), Shedden Rd., P.O. Box 291, Grand Cayman. WTDR 11/72.

36321 — JAMAICA — Refrigerators-electric type for household use. Quotations: c.i.f. Grand Cayman. Home Supplies Ltd., Attn: Mr. Brian Finnigan (I, A, R), Shedden Rd., P.O. Box 291, Grand Cayman. WTDR 11/72.

36340 — SWITZERLAND — Electric household and kitchen appliances possibly wired for 220 volts for sale in department store chains. A-Z Import Export GmbH (I, D), Postfach, 8617 Moenschaltdorf. WTDR in prep.

36343—ISRAEL—Ice cubers and flakers, 220/380 volt 50 hz. Claus W. Philippsohn (A), 2 Barzilai St., Tel Aviv. WTDR in prep.

36391 — JAMAICA — Household electric water heaters. Quotations: c.i.f. Cayman Islands. Home Supplies Ltd., Attn: Mr. Brian Finnigan (I, A, R), Shedden Rd., P.O. Box 291, Grand Cayman. WTDR 11/72.

36393 — SINGAPORE — Domestic trash compactor. Scott & English (S.E.A.) Sdn. Bhd. (I, A, D), 195/201, Thomson Rd., Newton P.O. Box 11, Singapore 11. WTDR 12/72.

Communication equipment

36621 — SWITZERLAND — Communication calling, telephone systems for automobiles; HF door openers; portable transceivers. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTDR 12/72.

36622 — SWITZERLAND — Cassette operated TV - video systems, 220 V, 50 cycle AC. Parulag Ltd. (I, D), P.O. Box 3170, 8401 Winterthur. WTDR 12/72.

36625 — VIET NAM — Electronic fishery equipment; electronic communication equipment, fish finder. Chantiers des Ateliers Reunis d'Indochine (CARIC) (I, D, M), 17 Ben Bach Dang, Saigon. WTDR in prep.

36629 — SWITZERLAND — Telephone accessories and novelty equipment; mobile radio-telephone systems. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTDR 12/72.

Electronic components, accessories

36742 — SPAIN — Transistors. Enrique Gonzalez Jimienez (I), Velazquez 71, Madrid 6. WTDR 12/70.

36790 — AUSTRALIA — Electronic components. Cannon Electric (Australia) Pty. Ltd. (I, D, M), 248 Wickham Rd. Moorabbin, Victoria 3189. WTDR 3/72. Firm is seeking distribution rights in Australia and its territories for electronic components not currently available or which are not suitably represented.

36790 — SPAIN — Electronic components including resistors, capacitors, coils. Enrique Gonzalez Jimenez (I), Velazquez 71, Madrid 6. WTDR in prep.

Engineering, laboratory, scientific, research instruments

38110 — GERMANY — Analytical instruments for laboratories, process controls. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTDR in prep.

38112 — FRANCE — Physico-Chemical analyses. RN Electronique (M, D), 236, Rue Sadi Carnot, 59320 Haubourdin. WTDR in prep.

38112 — JAPAN — Analytical instruments for laboratory use. Catalogs, descriptive materials requested. Sanyo Trading Co., Ltd. (I, D, exporter), 11 Kanda Nishiki-cho 2-Chome, Chiyoda-ku, Tokyo. WTDR 9/71.

38112 — SWEDEN — Instruments for water pollution control: for determination or control of chemical oxygen demand (COD) in municipal or industrial sewage treatment plants; for controlling air supply to activation basins; for supervision of COD value of influent or effluent sewage in plant. AB Tellusond (A, D, M), Ebbe Lieberathsgatan 19, S-412 65 Goteborg. Attn: S. Englund. Government owned firm.

Instruments for measurement, control and analysis

38210 — GERMANY — Nuclear spectrometers new to the market. Helmut Koenig (A), 5962 Drolshagen, Alte Landstr. 23. WTDR in prep.

38216 — BELGIUM — Metal test coupons anti-freeze corrosion testing. Analis S.A. (M, D, A), 14 Rue Dewez, 5000 Namur. WTDR 1/72.

Surgical, medical, dental instruments

38410—FRANCE—Medical instruments, apparatus. RN Electronique (M, D), 236, Rue Sadi Carnot, 59320 Haubourdin. WTDR in prep.

38410 — SWITZERLAND — Advanced bioelectric, monitoring, medical equipment and computer systems. Paul Fuchs (I, A, D), Postfach 342, 1001 Lausanne. WTDR 12/72.

38410 — SWITZERLAND — Adv. medical equipment, monitoring equipment, medical electronic equipment, all kinds, incl. nuclear, ultrasonic computer, analysis, intensive care systems. Bommber AG, Attn: Mr. Glaser (I, D, R, M), Langgruetstrasse 112, 8047 Zurich. WTDR 4/72.

Photographic equipment, supplies

38612—INDIA—Electrostatic photocopying equipment. Advani-Oerlikon Private Ltd. (M), Radia House, 4th Floor, Block D, Shivsagar Estate, Dr. Annie Besant Rd., Bombay 400018. Cable: Citorex. WTDR 11/71.

Toys, amusement, sporting goods

39410 — GERMANY — Battery-powered toys. Induwa Spielwarenvertrieb, Attn: Mr. Paul Menckhoff (I, D, A), 415, Krefeld-Traar, An Der Elfrather Muehle 241.

39420 — GERMANY — Stuffed toy animals; dolls; "Peanuts" line, or equal. Induwa Spielwarenvertrieb, Attn: Mr. Paul Menckhoff (I, A, D), 415 Krefeld-Traar, An Der Elfrather Muehle 241.

39430—GERMANY—Children's vehicles, summer seasonal. Induwa Spielwarenvertrieb, Attn: Mr. Paul Menckhoff (I, D, A), 415 Krefeld-Traar, An Der Elfrather Muehle 241.

39490 — GERMANY — Children's swimming pools, plastic. Induwa Spielwarenvertrieb, Attn: Mr. Paul Menckhoff (I, D, A), 415 Krefeld-Traar, An Der Elfrather Muehle 241.

Schools, educational services

82990 — BELGIUM — Language courses. Ivac S.A. (I, A, D, language training), 691 Chaussee de Mons, 1070 - Brussels. Subsidiary Bell Telephone Company, Antwerp.

New Trade Lists

The Bureau of International Commerce has published the following Trade List, of which mimeographed copies may be obtained by firms domiciled in the United States from BIC-266, U.S. Department of Commerce, Washington, D.C. 20230, and from Department of Commerce Field Offices. The price is $1 per list.

State Trading Organizations—East Germany, December.

Future Construction Abroad

MALAGASY REPUBLIC—The Government has announced **two hydroelectric projects**, they are: **Namorona River Project**—Construction of two small dams and a power plant with a capacity of five megawatts. In March the Japanese Government signed a preliminary agreement to provide loan financing for the construction of this $6 million project. **Vohitra River Project**—Construction of a dam with a capacity of 1.5 million cubic meters and a power plant with four generators totaling 100 megawatts. Because of the configuration of the area around the proposed construction site, a four-kilometer tunnel would also have to be constructed for the exit of the water from the power plant. This latter structure would account for a large portion of the entire cost of the project, now estimated at $40 million. U.S. firms should send inquiries (preferably in French) to: M. Wilson Rakotoarivelo, Chef du Service de l'Energie, Direction des Mines et de l'Energie, Ministere des Finances et de l'Economie, Boite Postale 896, Tananarive.

JAMAICA—United Homes Ltd. is building **three large housing developments** in Kingston:

Oakwood Project was to begin in September on 62 three-bedroom townhouses and 48 one and two-bedroom apartments to be located on Constant Spring Rd. in northwest Kingston. The development should be finished by next September. Cost of the total project is estimated at $1.875 million.

The Gallery is the name for a new development, also costing $1.875 million, to be built on Oxford Rd. in New Kingston, close to the Sheraton-Kingston Hotel and a fast growing commercial district. Work was due to commence in October, with completion scheduled for November 1973. The 43 three-bedroom townhouses and 42 two-bedroom apartments will each have a separate laundry. Developers for both projects—United Homes Ltd., 9-11 Church St., Kingston, Tele: 932-3700. Contractors for both projects—United Construction Ltd., 149 King St., Kingston, Tele: 932-5315. Architect for Oakwood—Marvin Goodman & Assoc., 5½ Waterloo Rd., Kingston 10, Tele: 926-6241. Architect for the Gallery—Environmental Design, 8B Dumfries Rd., Kingston 5.

United Homes has plans on the drawing boards for a *$7.5 million development on Constant Spring Rd.*, to include a total of 250 apartments, houses and townhouses on a 17-acre tract, to begin in late 1973. The architect has not been named.

Kingston builders are finding it increasingly difficult to locate land suitable for housing construction. This is forcing a change from traditional single unit dwellings to apartment and townhouse construction. United Homes Ltd. has followed this trend and also plans to abandon traditional building methods. Victor Setton, Director of United Homes Ltd., stated that in 1974 his firm will shift completely to prefabricated, molded cement construction techniques in an effort to put a lid on rising costs. Setton is currently evaluating several U.S. prefabricaton techniques in preparation for the changeover.

THAILAND—The Thai Government is planning a second **major vocational education development** program for which a loan of $3 million is being requested from the Asian Development Bank. It is hoped that the loan arrangement will be finalized before the end of 1972, and implementation of the project may begin early 1973. The program, specifically planned for improving facilities of four major state-owned technical institutes, will involve procurement of teaching aids and equipment for all branches of technical training: mechanical power, electronics, electrical, mechanical tool operation, metal working, and civil technical works which include surveying and construction. Procurement of equipment will be by international tender. For additional information, write to Dr. Thanoo Sawaengsakdi, Project Director, Supervisory Unit, Dept. of Vocational Education, Ministry of Education, Chandrakasem Palace, Rajdamnern Rd., Bangkok.

JAMAICA—Several new housing projects in and near Kingston present sales opportunities for U.S. suppliers of sanitaryware, plumbing fixtures, lighting fixtures and stainless steel kitchen sinks.

S & C Chen Investment Ltd. began early in June, 1972, on the **Angels Court housing project** near Spanish Town. The first section will comprise 27 houses. The remaining 21 houses are expected to be built in late 1973. This firm also is planning a total of 100 three-bedroom houses on two separate sites not far from Angels Court. Construction should begin in late 1973. Developers—S & C Chen Investment Ltd., 91 Brunswick Ave., Spanish Town P.O. Architect—Stan Chen, same address. Trans-Globe (Jamaica) Ltd., same address.

Tonbridge Developments intends to add 70 three-bedroom houses to its Queensbury development on Molynes Rd. in Kingston. Work was due to begin in August. Developers—Tonbridge Developments, 22G Old Hope Rd., Kingston 5, Attn: Peter DuQuesnay. Architects—Shearer & Morrison, 175 Mountain View Ave., Kingston 6. Contractors—New Construction Ltd., 15 Caledonia Ave., Kingston 5.

Intra-Caribbean (Holdings) Ltd. is constructing 60 three-bedroom houses as part of its Villanova complex near Spanish Town. The second phase will be construction of a large shopping center to serve the area. Work on the shopping center will not begin before late 1973. Developers—Intra-Caribbean (Holdings) Ltd., 4A Marescaux Rd., Kingston 5, Attn: Tony Chin Yee. Architects & Contractors—Ashtrom Ltd., 20 Haining Rd., Kingston 5. Intra-Caribbean hopes to begin construction on 14 three-bedroom town houses at 107 Old Hope Rd. in Kingston between August and September, 1973. Developers—Intra-Caribbean, as above. Architects—Clifton M. Yap & Associates, 15 Caledonia Ave., Kingston 5. Contractors—To be appointed.

Dover Properties Ltd. is planning two adjacent housing developments to be built 20 miles east of Kingston. The developer at present is putting in roads and water mains in Metzgar Garden and Neptune Gardens, with the houses slated to begin in early 1973. Total cost for the two schemes is estimated at approx. $1.8 million. Developers—Dover Properties Ltd., 15A Old Hope Rd., Kingston 5, Attn: H. I. Henriques. Architect and Contractors—Not yet selected.

JAMAICA—The Government of Jamaica has received a $6.5 million World Bank loan for **a highway maintenance program.** The Government approached the United Nations Development Program and received approval for a feasibility study and it is being conducted by the consultant, T. P. O'Sullivan & Partners, 14 Queen Anne's Gate, London S.W. 1H9AA, England.

PARAGUAY — Three related projects could prove beneficial to U.S. construction firms:

1—The feasibility engineers studying the Saltos del Guaira/Sete Quedas hydroelectric project have recommended construction of a **high dam at Itaipu** near Hernandarias rather than one near the Saltos del Guaira. It will be over a mile wide and almost 560 feet high, with abutment dams and dikes adding another four miles of width. The spillway will handle more than 2 million cubic feet of water per second. The power plant will include 14 penstocks 40 feet in diameter, leading to 14 million-horsepower turbines and 14 generators rated over 750,000 kilowatts each. Generating capacity will be almost 11 million kilowatts. Site preparation may begin as early as 1974.

Construction costs for the Itaipu complex are estimated at about $2 billion, not including transmission lines (an additional $500 million or more), an eventual lock and canal system capable of handling river barge traffic (an estimated $300 million). or needed investments in related installations. U.S. firms may maintain contact with either the American partner in the feasibility engineering consortium: International Engineering Co., Inc., 220 Montgomery St., San Francisco, Calif., or with the consortium itself: IECO-ELC Study Group Rio Parana, Avenida Rio Branco 135, 6th Fl., Rio de Janeiro, GB, Brazil.

2 — Construction of the Itaipu High Dam will require an estimated 14 million cubic yards of concrete using an estimated 1,850,000 tons of cement. Paraguay hopes to provide at least half, if not all, of the needed cement and has sufficient raw materials to do so. However. the present **cement plant at Vallemi would have to be expanded** in the very near future in order to meet this demand. At least one additional 700-ton-per-day oven will be needed. German Krupp equipment, including a new oven, is now in use but U.S. suppliers may wish to contact Dr. Juan Plate, Vallemi S.A. Ind. Com. y Financeria, Estrella 620, 4° Piso, Asuncion, concerning possible plant expansion.

3 — Construction of the Itaipu High Dam also will require major investments in transportation facilities to the site. The nearest navigable river port for river barges or small ocean going vessels is Asuncion. The present highway from Asuncion cannot carry the expected heavy traffic, especially if the project uses cement from the Vallemi plant. One proposal has been to build an **electric railroad from Asuncion to Itaipu.** A right of way now exists from Asuncion

to Villarrica, slightly less than half way to Itaipu, and the terrain from Villarrica to Itaipu does not appear overly difficult. The existing railroad uses wood burning locomotives but electricity would be available from the Acaray hydroelectric plant near the Itaipu site. A major problem would be the need for immediate construction, as transportation may well be needed within the next two years. U.S. engineering and construction firms may wish to explore this possible project with the director of the Paraguayan railroad system, Presidente Ricardo Garay, Ferrocarril Carlos Antonio Lopez, Calle Mexico y Presidente Ayala, Asuncion.

CANADA—British Columbia's Premier Barrett has confirmed agreement "in principle" that the State of Alaska will complete construction of a road from Skagway to a specified point on the border of British Columbia, while the Federal Government of Canada, supported to an as yet uncertain degree by the Government of British Columbia, would **build a road across about 35 miles** of that Province from the Yukon Territory to link up with the Skagway road on the Alaskan border. The B.C. Highways Department, Vancouver, will conduct discussions with the Federal Government on sharing the project costs.

THAILAND—The design of a new **$90 million water treatment and distribution system** for Bangkok is in its final stage of preparation. The consulting firm designing this project for Bangkok's Metropolitan Water Works Authority (MWWA) is Camp, Dresser McKee (CDM), One Center Plaza, Boston, Mass. The new system will include the following components: **Intake pumping station:** Located on the Chao Phya River at Sam Lae, the cost of construction is estimated at around $1 million and will contain five horizontal propeller pumping units valued at $500,000. **Water treatment plant:** The plant will have a capacity of $320 million gallons per day and require $30 million to construct. In addition, the equipment for the plant will include pumps, transformers, and clarifiers worth about $6 million. **Tunnels:** The treated water will be carried through a 20-mile tunnel system which will range from 6-11 feet in diameter. This portion of the project may cost between $32-33 million. **Distribution pumping stations:** The new Bangkok system will include four distribution pumping stations. Each station should cost around $3 million and, together, they will house $3.5 million worth of pumps and transformers. In addition to the above, $4-5 million has been earmarked for purchases of general use equipment, trucks, communications equipment, lathes, and other material. The list of required items is still being negotiated between MWWA and the World Bank. Negotiations with the Bank regarding the financing, $43 million, of this project should be completed by March. If that schedule is maintained, contracts could go out to bid as early as July. Several components of the system could provide attractive sales opportunities for U.S. companies. U.S. companies who wish to consider this project should contact the Metropolitan Water Works Authority, Bangkok, Thailand.

ETHIOPIA—The Nippon Mining Co. is currently conducting test drilling at a site known as Adi Rassi, located between Debarwa and Decamare in central Eritrea, for **open pit mining.** Some 40 to 50 meters of overburden cover the winding ore body so far identified. From cores shown the ore seems of a lower grade than that at nearby Debarwa, but reportedly its best section are 12-15 percent copper. Investigations are still in the preliminary stages and the company appears to have made no firm plans concerning the possible exploitation of this site. Because of its proximity to Debarwa, where Nippon plans to construct a concerntrator plant, a small open pit facility might be feasible, however. U.S. suppliers of open pit mining equipment may contact T. Hotta, General Manager, Nippon Mining Co., Asmara, Ethiopia.

BELGIUM—The President of the Port Authority revealed **two major changes to the port facilities at Zeebruges** which will be put into effect by about 1977. The first major change involves the construction, for about $350 million, of a major new lock and canal between the sea and an extensive inner harbor and industrial area. The new lock, work on which is already underway, will be 1641 ft. long and will permit access to the new inner harbor for fully loaded vessels of up to 125,000 tons and access for empty ships (e.g. for repair) of up to 225,000 tons. In the new inner harbor, several wide and deep waterways and wharfs will be built opening directly on ground available for the private construction of factories. Further information concerning this project may be obtained from: L. Verboven, Director-General, Zeebrugge Harbor Co., 2 Louis Coiseaukaai, 8000 Bruges, Belgium. The second major change which may come about at Zeebruges is the installation of a receiving and distribution terminal for liquefied natural gas. The gas, which a consortium of gas distributors of Common Market countries intends to import from Algeria, will require a coastal terminal capable of handling ten million tons of gas per year. The two leading contenders as the site for this reception and distribution center are Zeebruges and Dunkirk. If the Belgian port is chosen over the French one, the commercial firm of Distrigaz, 4 Rue Guimard, 1040 Brussels, will operate the terminal. U.S. exporters of the necessary equipment should inform Distrigaz now of their interest and abilities. A plan of the harbor works and a schedule for tender invitations are available from the U.S. Department of Commerce, Trade Opportunities Sect., BIC-267, Rm. 4813, Washington, D.C. 20230.

PERU—By Supreme Resolution, the Government of Peru assigned to SIMA, the Government-owned shipbuilding and ship repair facility at Callao, the responsibility to form a mixed enterprise to **produce large diameter steel pipe** for Peru's proposed trans-Andean petroleum pipeline. A Government Proposals Evaluation Commission recommended that the pipe mill be in operation no later than June 1974; that the Company be formed and orders placed for machinery no later than Jan. 31 of this year, and that SIMA be designated as the appropriate organization to conduct negotiations with domestic and foreign suppliers of capital and equipment. The Supreme Resolution also states that the pipe mill is being set up in order to use steel plate which will be produced by SIDERPERU, the State-owned steel mill in Chimbote. Financing for the pipeline has not yet been secured, but will probably be carried out through a combination of suppliers' credits and COFIDE loans. Interested U.S. manufacturers of pipe mill machinery should combine their offers with long term financing and communicate directly with: The General Manager (Empresa Constructora de Tubos de Acero), Servicio Industrial de la Marina, Base Naval del Callao, Callao, Peru.

PANAMA — Preliminary announcement of bids for the construction of **facilities at the University of Panama** are as follows: Group A: School of engineering; experimental engineering center; student facilities including library, cafeteria and auditorium: school of architecture; and related public works projects. Group B: School of biological sciences; and specialized analytical laboratory facilities. Project is Inter-American Development Bank (IDB) financed. Only offers from firms with proven construction experience will be considered, and offers can be for either Group A or B, or both. Complete plans and specifications are available from the Oficina Ejectora del Programa UNIPAN-BID, Edificio de la Facultad de Derecho y Ciencias Politicas, Cuarto Piso, Ciudad Universitaria, Panama, Republica de Panama. Official announcement of bid, which is expected in the near future, will have a 60-day deadline.

PANAMA — The Panamanian Government's Water and Sewage Agency, IDAAN, has announced forthcoming bids involving construction of **new water supply systems in 60 rural communities and expansion of existing systems in 20 other small cities, and construction of a new sewage system in David.** The total project cost is $11.45 million, of which $7.5 million will be IDB financed. The following items will be procured: construction tools and materials; metering, pumping and chlorination equipment; meter tanks, and well piping. U.S. firms should contact IDAAN, Adan Arnulfo Arjona, Director General, Apartado 5234, Panama 5, Republica de Panama, with sales material as soon as possible. Do not wait for bid announcement.

THAILAND—The Royal Thai Government, to increase medical facilities for the expanding Bangkok metropolis, will build **hospitals in several locations in the suburbs.** The first of the series will be a 500-bed hospital to be constructed on Ram-Inthra Rd., at 11-km milestone of Minburi District, just north of Bangkok. Construction will begin early this year. Various medical and laboratory equipment will be needed to equip the hospital. U.S. suppliers interested in the project can get additional information from Dr. Somsakdi Suebsaeng, Director of Suburban Hospital Project, Dept. of Medical Services, Ministry of Public Health, Deves Palace, Samsen Rd., Bangkok.

THAILAND—The National Energy Authority (NEA) is now considering building **underground pipelines for irrigating farmlands** in areas where traditional irrigation systems are difficult and costly, particularly provinces along the Mekong River, where soils are sandy and unsuitable for dredging irrigation canals. A preliminary feasibility study of this proposed system will determine the cost of construction and the benefits to be gained. Further steps will be taken should the study prove the project feasible. Interested U.S. firms may write to: Mr. Nitipat Chalichand, Secretary-General, National Energy Auth., Pibultham Villa, Kasatsuk Bridge, Bangkok.

CANADA—Construction of a **$3.5 million hotel-apartment project**, consisting of a 112-room hotel and 40 apartments, is expected to commence in Kamloops in central British Columbia, in August/September. Interested U.S. suppliers are welcome to bid on all types of supplies and equipment normally required for a complex of this type. All inquiries should be addressed to: Ken Lee, Design and Planning Dept., Ross Ritchie Architect, 844 West Hastings St., Vancouver, B.C.

FRANCE — Jean Verdier, Prefect of Paris, announced construction **projects in the** Plaine de Vaugirard, western district of Paris. The project includes the following installations: **a heliport** covering 110,000 sq. meters; **a hotel** covering 7,050 sq. meters; a 36,456 sq meter-area for the construction of **public housing; buildings to house municipal services; and an educational center and recreational facilities.** Interested U.S. firms can obtain further information from Andre Herzog, Directeur General, Prefecture de Paris, Direction Generale de l'Amenagement Urbain, 98 quai de la Rapee, 75012 Paris (Tele. 307-5660).

FRANCE—The construction of a **three-star hotel** in the newly-expanding western area of Paris, La Defense, is currently in the planning stage. The hotel complex will include 600 rooms, and possibly a commercial center. No starting date has been scheduled for construction. Further information may be obtained by contacting: Bernard Revert, Manager, Compagnie Internationale des Wagons-Lits, Direction Centrale Hoteliere, 40 rue de l'Arcade, 75008 Paris (Tel. 265-3709). **Other hotels** projected in the La Defense area include: a 500-room luxury hotel to be opened Oct. 1 by The British group Grand Metropolitan Hotel, 23 rue de la Paix, 75002 Paris; A 1000-room hotel sponsored by the Spanish travel agency Melia, 31 avenue de l'Opera, 75001 Paris (no opening date scheduled yet); a 500-room hotel being opened in 1976 by the Canadian group Four Seasons, which, for the time being, has no offices in France.

BOLIVIA-PERU—Representatives from Bolivia and Peru met in La Paz to begin negotiations for the location and construction of a **bi-national petrochemical plant.** Juan Pereira, Executive Secretary of the Technical Secretariat of Integration, Lima, stated that the Peruvian Cabinet had approved Bolivia's proposal to locate the plant close to Desaguadero, straddling the border. Pereira also stated that the petrochemical plant construction would contribute to the organization of secondary textile plants, chemical plants whose products would be used in the mining industry, and others which will complement fertilizer industries based on ammonia and other industries based on the manufacture of pesticides-fungicides. Both the Peruvian and Bolivian governments were trying to hasten agreement so that the plant would be in operation by 1977. Both governments will try to obtain loans from international banks and financial institutions, private capital, and even petrochemical equipment manufacturers. The project would be divided into a basic products plant and intermediary products plant. The jointly owned basic product plant would have an annual capacity of 112.100 m.t. of ethylene, 56,300 m.t. of propylene, and 46,000 m.t. of benzene. The intermediary products plants would be divided into two entities, one Bolivian and the other Peruvian. The Bolivian intermediary products plant will have an annual capacity of 53,000 m.t. of styrene, 12,000 m.t. of polystyrene, 28,000 m.t. of high density polyethylene, and 25,000 m.t. of polypropylene. The Peruvian intermediary products plant would be able to produce 41 900 m.t. of vinyl chloride, 30,000 m.t. of polyvinyl chloride compounds (suspension), and 10,000 m.t. of polyvinyl chloride compounds (emulsion), 45.000 m.t. of low density polyethylene, 24,000 m.t. of acrylonitrile, and 3,000 m.t. of cynides. The basic products plant is estimated to cost more than $30 million; the Bolivian and Peruvian intermediary products plants respectively are estimated to cost $63 million and $90 million. This petrochemical complex will offer substantial opportunities to provide design and technical assistance, as well as machinery and equipment.

INDIA—The Government of Gujarat proposes the construction of a **multi-purpose Sardar Sarovar Dam (Narmada Project)** in early 1973. The project envisages construction of a large straight gravity concrete, spillway and power dam across the Narmada with the rock-fill flank on the left bank. An extensive canal system covering a large portion of the culturable area of the State is also planned. The Government is very keen on completing the project on schedule and is therefore interested in making the best use of the latest construction equipment. Copies of a letter from the Public Works Dept., Government of Gujarat, furnishing basic information on the proposed project and a tentative listing of construction equipment that may be required for the project are available from the U.S. Department of Commerce, Trade Opportunities Sec., BIC-267, Rm 4813, Washington, D.C. 20230.

TURKEY—Makina ve Kimya Endustrisi Kurumu (MKEK) plans to set up a new **200,000 ton/year ingot capacity high quality steel manufacturing plant.** The feasibility study will be drafted in 1973 for the State Planning Organization's final approval. It is anticipated that the feasibility study will be drafted by the Turkish Engineering Co., probably in a joint venture with foreign firms. After final Government approval, expected in 1974, MKEK will proceed with the project either on a turnkey basis or a separate tender. Interested U.S. firms may contact MKEK, Tandogan Meydani, Ankara.

PORTUGAL — The Lisbon Municipal Council is seeking proposals for the supply and installation of **five large aquariums** in centrally located Eduardo Park. There will be five rectangular aquariums, each two meters high by seven meters long by one meter wide (i.e. from front face to back face). The tanks will be glassed-in on all six sides. Side panels must be thick enough (up to eight centimeters) to withstand 14 tons of water heated at 20 to 25 degrees centigrade. Panels for the ends, bottoms, and tops may be lighter since they will abut concrete walls or, in the case of tops, bear no water weight. Glass panels must be laminated and have special resistance to vibration and shock. For aesthetic reasons, planners want to avoid metal hinges joining panels and contemplate use of epoxy or other resin. The Parks Director was unable to estimate the cost, but stated that the cost of the heavy plates of glass and technical fees for installation would not be an obstacle to completion by mid-1973. Information and/or proposals for the design of the aquariums, supply of glass plates and installation should be directed to Presidente da Camara Municipal de Lisboa, Divisao de Arborizacao e Jardinagen, Attn: Engineer Pulido Garcia, Avenida 24 de Julho 171-C, Lisbon.

ARGENTINA—Looking well off into the future, Argentina, in conjunction with Brazil, Uruguay and Paraguay plans to develop a **series of important hydroelectric projects** along the Parana and Uruguay rivers. These projects are at various stages of development, with construction undoubtedly to take decades. The resources required for such ambitious plans are clearly enormous, and beyond the region's capability without substantial financial and technical help from outside sources. The projects include: *1)* the Parana-Iguazu (Arg.-Paraguay), of 7.4 million kw, just below the border of Arg., Paraguay & Brazil on the Parana River; *2)* Corpus (Arg.-Paraguay), of 4.6 million kw, below the Parana-Iguazu dam on the Parana; *3)* Yacyreta-Apipe (Arg.-Paraguay), 3.2 million kw; *4)* Itati (Arg.-Paraguay), 3 million kw, near the confluence of the Parana & Paraguay Rivers; *5)* Bella Vista (Arg.), on the Parana, 2 million kw; *6)* Esquina (Arg.), 2.3 million kw, on the Parana; *7)* Parana-Santa Fe (Arg.), 2.5 million kw. on the Parana near the twin cities of Parana and Santa Fe; *8)* Ibera (Arg.), on the Ibera marshes in Corrientes-Entre Rios provinces; *9)* Roncador (Arg.), on the upper Uruguay River; *10)* Garruchos (Arg.-Brazil), on the Uruguay River; *11)* San Pedro (Arg.-Brazil), on the Uruguay River, just above the Uruguay border; and *12)* Salto Grande (Arg.-Uruguay, 1.62 million kw, now nearing the call for construction bids.

CANADA—The new **Montreal International Airport** is expected to open in April 1975. Passengers will be brought to and from parked aircraft in mobile lounges similar to those in use at the Dulles Airport in Washington although there will be a limited number of conventional gates, probably four in all, for use by some types of airplanes on fast-connecting flights. **Fourteen mobile** lounges will be required when the airport opens and these will cost upward of $5 million. Interested U.S. manufacturers of mobile lounges may contact the New Montreal International Airport Project Office, Cite du Havre, Montreal, or the American Consulate General, 1558 McGregor Ave., Montreal, Quebec, for further information.

JAMAICA—Construction of a $12.4 million hotel by the Urban Development Corp., a Government of Jamaica statutory organization, is to start in March. The convention-type building will be known as Mallards Reef Hotel and will have 400 rooms. The project is being financed by a Government of Jamaica guaranteed loan of $10.5 million from the First Chicago Merchant Bank Jamaica Ltd. U.S. suppliers of **air conditioning equipment, kitchen equipment, laundry equipment and lighting fixtures** should contact Alastair Roger, Barclays Bank Bldg., 54 King St., Kingston. Developers: Urban Development Corp., 40 Harbour St., Kingston — (Tel: 929-2240). Architects & Contractors: Coutinho Caro & Co. Ltd., Barclays Bank Bldg., 54 King St., Kingston (Tel: 932-1965).

New Publications

When ordering any publications, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its field offices.

OFFICE OF THE SECRETARY

A Look at Business in 1990—a summary of the White House Conference on the Industrial World Ahead. Includes remarks by President Nixon. 386pp. $5.25.

Export control. 101st quarterly report. 3rd quarter 1972, by the Secretary of Commerce to the President, the Senate, and the House of Representatives. 70pp. 55¢.

DOMESTIC AND INTERNATIONAL BUSINESS ADMIN.

BUREAU OF EAST-WEST TRADE

Export control bulletin—supplement to export control regulations (ECB-OEC-75). 32pp. 40¢.

Export control bulletin—supplement to export control regulations (ECB-OEC-76). 10pp. 40¢.

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Overseas Business Reports

Annual subscription $28.50 ($7.25 more for foreign mailing). Single copy 30¢.

Foreign trade regulations of the United Kingdom (OBR 72-066). 10pp.

Basic data on the economy of Bangladesh (OBR 72-067). 8pp.

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BUREAU OF ECONOMIC ANALYSIS

Business conditions digest. Series ES1, No. 72-12. Data through November. Annual subscription $33 ($8.25 more for foreign mailing). Single copy $3.25.

Defense indicators. Series ES4, No. 72-12. Annual subscription $7.50 ($2 more for foreign mailing). Single copy 75¢.

Projections of the population of the Communist countries of Eastern Europe, by age and sex: 1972 to 2000 (Series P-91, No. 22). 48pp. 75¢.

BUREAU OF THE CENSUS

Agriculture

Cotton ginned, prior to December 15, by States: 1972, 1971, 1970 and 1969; and average bale weight of cotton ginned prior to December 1, by specified States for the crop of 1972 (A10: 72-9). 2pp. 10¢.

Construction and Housing

1970 Census of Housing

Housing Characteristics for States, Cities and Counties

Michigan. Vol. 1, part 24. 378pp. $5.

New one-family homes sold and for sale: October 1972 (C25-72-10). 26pp. Annual subscription $3. Single copy (annual) $2. Single copy (monthly) 10¢.

Housing authorized by building permits and public contracts: October 1972 (C40-72-10). 94pp. Annual subscription $17.50 ($4.50 more for foreign mailing). Single copy (annual) $4.50. Single copy (monthly) $1.25.

Authorized construction — Washington, D.C. area: November 1972 (C41-72-11). 4pp. Annual subscription $1. Single copy 10¢.

Distribution and Services

Weekly retail sales. Estimated weekly retail sales of retail stores in the United States for week ending December 23 (CB-72-298). 2pp. 10¢.

Foreign Trade

Bunker fuels: October 1972 (FT 810-72-10). 2pp. Annual subscription $1. Single copy 10¢.

Gold movements: November 1972 (FT 2402-72-11). 2pp. Annual subscription $1. Single copy 10¢.

Export and import merchandise: November 1972 (FT 900-72-11). 6pp. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 20¢.

Highlights of exports and imports: November 1972 (FT 990-72-11). 116pp. Annual subscription $5 ($1.25 more for foreign mailing). Single copy 45¢.

Governments

1972 Census of Governments

Governmental units in 1972 (Preliminary No. 1). 12pp. 25¢. This is the first of a series of brief reports designed to make available, as early as possible, preliminary information from the 1972 Census of Governments. The several series of publications resulting from the Census of Governments will supply data concerning numbers and characteristics of governments in the United States, value of taxable property, public employees and payrolls, and governmental revenues, expenditure, debt, and financial assets.

Environmental quality control (State and local government special studies No. 63). 40pp. 70¢. This report is the third Bureau of the Census publication on the activities of selected large governmental units in the area of environmental quality control.

Holdings of selected public employee retirement systems: Sept. 30, 1972 (GR72 No. 3). 1pp. 25¢.

Quarterly summary of State and local tax revenue: July-September 1972 (GT72 No. 3). 8pp. 25¢.

Industry

Household furniture and bedding products: 1970 and 1969 (Series: MA-25D (70)-1). 10pp. 25¢.

Fats and oils—production, consumption, and stocks—seasonal adjustment supplement: 1959 to 1971 (Series M20J and M20K). 96pp. 75¢.

Woven fabrics: production, stocks and unfilled orders: 1968 to 1972 (Series M22A—supplement). 26pp. Annual subscription $1.50. Single copy 15¢.

Shipments of thermoplastics pipe, tube, and fittings: summary for 1971 (Series: M30F(71)-13). 6pp. Annual subscription $1.50. Single copy 15¢.

Steel shipping barrels, drums, and pails: summary for 1971 (Series: M34K(71)-13). 36pp. Annual subscription $1.50. Single copy 15¢.

Population

Current Population Reports issued in Series P-20, P-23, P-25, P-26, P-27, P-28 (summaries only), P-60, and P-65 are sold as a single consolidated subscription at $30.50 per year ($7.75 more for foreign mailing).

Estimates of the population of the United States to November 1, 1972 (Series P-25, No. 494). 2pp. 10¢.

Voter participation in November 1972 (advance statistics) (Series P-20, No. 244). 4pp. 15¢.

Money income in 1971 of families and persons in the United States (Series P-60, No. 85). 164pp. $2.

Characteristics of the low-income population: 1971 (Series P-60, No. 86). 134pp. $2.

Recent purchases of cars, houses and other durables and expectations to buy during the months ahead: survey data through October 1972 (Series P-65, No. 43). 20pp. 30¢.

1970 Census of Population

Detailed Characteristics

Georgia (PC(1)-D12). 700pp. $3.50.

Illinois (PC(1)-D15). 768pp. $6.25.

North Carolina (PC(1)-D35). 638pp. $4.75.

South Carolina (PC(1)-D42). 783pp. $5.25.

Population and housing characteristics for the United States, by State: 1970 (PC(S1)-29). 76pp. $1.25.

Occupation by industry (PC(2)-7C). 532pp. $7.25.

Transportation

1972 Census of Transportation

Truck Inventory and Use Survey

Delaware (TC72-T8). 24pp. 35¢.

Maine (TC72-T-20). 24pp. 35¢.

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North Carolina (TC72-T34). 24pp. 35¢.

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Monthly weather review, Vol. 100, No.

11. Annual subscription $19 ($4.75 more for foreign mailing). Single copy $1.75.

Environmental Data Service

Monthly climatic data for the world. Vol. 25, No. 5. Annual subscription $5.50 ($1 more for foreign mailing). Single copy 50¢. Order only from National Climatic Center, Federal Bldg., Asheville, N.C. 28801, Attn: Publications. Make checks payable to Department of Commerce, NOAA.

National Marine Fisheries Service

Commercial fisheries abstracts. Vol. 25, No. 12. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 65¢.

Fishery facts 1—redfish, October 1972. 20pp. 25¢. This publication gives information on redfish characteristics, landings, availability, and markets.

Engineering economic model for fish protein concentration processes (NMFS CIRC-367). 180pp. $1.50.

Collecting and processing data on fish eggs and larvae in the California Current region (NMFS CIRC-370). 42pp. 50¢.

Fishery publications, calendar year 1971: lists and indexes (NMFS CIRC-372). 28pp. 30¢. The following series of fishery publications of the National Marine Fisheries Service, in calendar year 1971 are listed numerically (with abstracts) and indexed by author, subject, and geographic area: NOAA Technical Report CIRC (formerly Circular); Data Report; Fishery Leaflet; and NOAA Technical Report NMFS SSRF (formerly Special Scientific Report—Fisheries).

Indexed bibliography of the eggs and young of tunas and other scombrids (Pices, Scombridae), 1880-1970 (NMFS SSRF-652). 112pp. $1. The text is presented in English, Spanish, French, and German.

Making fish protein concentrates by enzymatic hydrolysis (NMFS SSRF-657). 38pp. 50¢. Research into biological methods for fish protein concentrate (FPC) preparation which has been carried out within the National Marine Fisheries Service is summarized.

NATIONAL BUREAU OF STANDARDS

Liquid densities of oxygen, nitrogen, argon and parahydrogen (Tech. Note 361). Revised October 1972. 182pp. $1.25. Tables of pressure, volume, density and temperature for the saturated liquid and for compressed liquid states from the triple point to the critical point of oxygen, nitrogen, argon, and parahydrogen are presented. The table entries of temperature are in Kelvin and Rankine, and table entries in pressure are in atmospheres and psia.

Methods of measurement for semiconductor materials, process control, and devices: quarterly report—April 1 to June 30, 1972 (Tech. Note 743). 58pp. $1. This is the sixteenth quarterly report to the sponsors of the Joint Program on Methods of Measurement for Semiconductor Materials, Process Control, and Devices. It summarizes work on a wide variety of measurement methods that are being studied at the National Bureau of Standards. Since the program is a continuing one, the results and conclusions reported here are subject to modification and refinement.

Estimates of the nature and extent of lead paint poisoning in the United States (Tech. Note 746). 164pp. $2. Estimates are given of the number of children who have elevated blood levels (40 μg or more of lead per 100 ml of whole blood) in each of 241 Standard Metropolitan Statistical areas throughout the country.

The generation of an accurate and uniform time scale with calibrations and prediction (Tech. Note 626). 64pp. 60¢.

Thermophysical properties of helium-4 from 2 to 1500 K with pressures to 1000 atmospheres (Tech. Note 631). 162pp. $1.25.

Technical news bulletin. Vol. 56, No. 12. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 65¢. This periodical is published to keep science and industry informed regarding the technical programs, accomplishments, and activities of the National Bureau of Standards.

National Bureau of Standards (Spec. Publ. 367). 66pp. $1. This brochure describes the scientific and technical research and development activities of the National Bureau of Standards through fiscal year 1972. It also gives a detailed look at some of its special programs. Illustrated.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price of each document is $3, unless otherwise specified. All reports are available in microfiche for 95¢ apiece.

Title-author-company index to reports published by the U.S. Department of the Interior, Office of Saline Water through July 1972 (ORNL-NDIC-11REV-1). Oak Ridge National Lab., Oak Ridge, Tenn. 107pp.

Index to NASA Tech Briefs, 1971 (N72-29976). National Aeronautics and Space Adm., Washington, D.C. in 201pp.

The following reports containing tentative findings and recommendations for future water policy are available. Prepared by the National Water Commission to be submitted to the President and Congress in 1973.

Review draft, proposed report of the National Water Commission, Vol. I (PB-212 993). National Water Commission, Arlington, Va., paper copy $6. 478 pp.

Same title, Vol. II (PB-212 994). Paper copy $9. 694pp.

Bioenvironmental effects associated with nuclear power plants: a selected biography (TID-26164). Battelle, Columbus, Ohio, 296pp.

Summary of selected legislation relating to the coastal zone (PB-212 885). University of Houston, Houston, Tex. 121pp. Topic areas covered include water supply, drainage, flood control, minerals, pollution, commercial fishing, recreation and conservation, ports and navigation, surface transportation, and air transportation.

Guidelines and standards for the use of volunteers in correctional programs (PB-213 029). National Information Center on Volunteers in Courts, Boulder, Colo., paper copy $9. 305pp.

Effects of air pollution on public attitudes and knowledge (PB-212 739). Oregon State U. 151pp. $6.

Bibliography of published railroad research reports (PB-213 047). Federal Railroad Admin. 61pp. Bibliography (with abstracts) listing reports that give results of contracted research and development, systems engineering, transportation surveys, and model development, along with intramural research reports and program summaries. Report supersedes PB-205 937—Published Reports.

Transportation problems of the autoless worker in a small city (PB-213 131). North Carolina A&T. 99pp.

U.S. transportation—some energy and environmental considerations (PB-213 034). 50pp. $3.75.

Effect of studded tires on different pavement materials and surface textures (PB-213 024). Washington State U. 39pp.

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Demonstration of a technique for limiting the subsidence of land over abandoned mines (PB-212 708). Candeub, Fleissig & Assoc., Newark, N.J. 92pp. Demonstrates a hydraulic technique for backfilling mine voids. General applicability of the technique, its costs and benefits, and prerequisites for employing the process are discussed.

Summary of selected legislation relating to the coastal zone (PB-212 885). U. of Houston. 121pp. Topic areas covered include water supply, drainage, flood control, minerals, pollution, commercial fishing, recreation and conservation, ports and navigation, surface transportation, and air transportation.

Methods of assessing the disadvantaged in manpower programs: a review and analysis (PB-213 167). Human Interactional Research Institute, Los Angeles. 195pp.

The effects of sewer surcharges on the level of industrial wastes and the use of water by industry (PB-213 267). North Carolina State U. 62pp.

Accident cause analysis (PB-212 830). Cornell Aeronautical Lab. Buffalo, N.Y. 77pp. Influence upon accidents of drinking, lighting conditions, driver education and selected driver characteristics are measured.

Microwave technique for detecting and locating concealed weapons (PB-213 202). Transportation Systems Center, Cambridge, Mass. 54pp.

Title-author-company index to reports published by the U.S. Department of the Interior, Office of Saline Water, through July 1972 (ORNLNDIC-11-Rev.-1). Oak Ridge National Lab. 107pp.

The following reports concerning various aspects of scrubber use and present engineering design methods are available. Reports present actual experience on many scrubber installations in various industries and cover related topics such as auxiliaries, materials of construction, physical and chemical data, cost estimation and optimization techniques, and the disposal of liquid and solid wastes:

Wet scrubber system study: Vol. I—Scrubber handbook (PB-213 016). Ambient Purification Technology, Riverside, Cal. 828pp. $13.50.

Same title, Vol. II—Final report and bibliography. 181pp. $6.

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